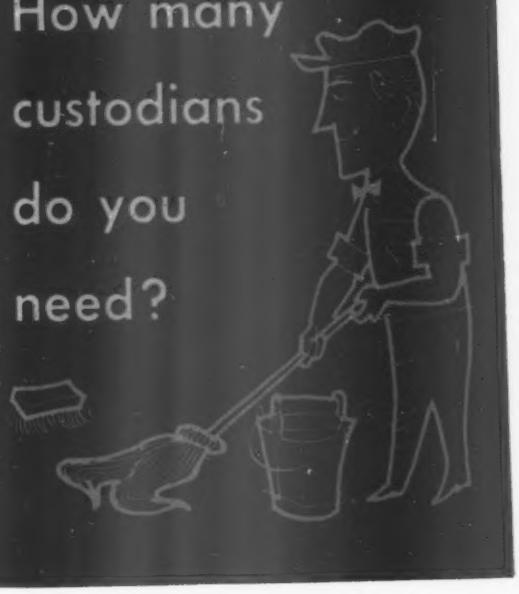
October 1958

SCHOOL MANAGEMENT

PRACTICAL SOLUTIONS TO SCHOOL MANAGEMENT PROBLEMS

HOW TO HIRE A TEACHER – AND WHEN

How many custodians do you need?



6 QUESTIONS OF SCHOOL BOARD POLICY

EXPLORATIONS IN EDUCATION

- Programming the smaller high school
- The ungraded primary unit
- A study in class size
- Accelerating fourth graders

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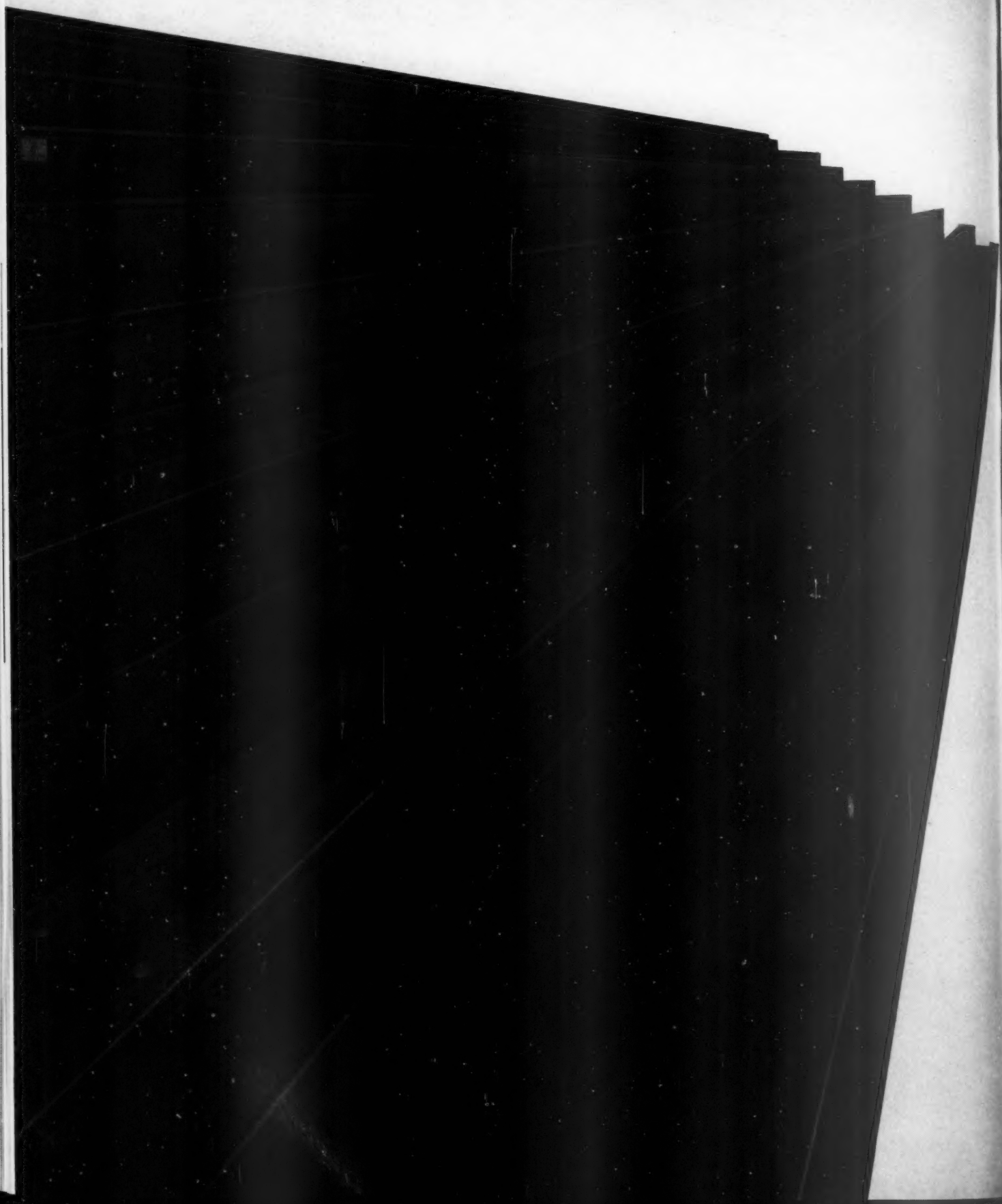
NEW FROM WAYNE

MAGNIFICENT ROLLING GYMSTANDS IN



continuous LENGTHS... *motorized!*

Here is gymnasium seating that can give you up to 10% more seating capacity in the same floor area—that will greatly improve the appearance of your gymnasium—that is fully automatic!

New, exclusive Wayne-Weld design replaces conventional sectional seating with one sleek, sweeping expanse of seat, riser and footboards for the entire length of your gymnasium. Opens and closes with the turn of a key switch. This is truly a major seating advance for America's finest gymnasiums.

Never before such handsome, efficient gymnasium seating . . . one *continuous*, *motorized* bank of seating instead of the three, four, five, ten or more individual units of various lengths normally needed to fill a complete side or end of your gym.

More Seats in the Same Floor Area—Wayne's new continuous design eliminates gaps between units, adding up to 10% more seating capacity. Note how the new lengths also effect a more practical and eye-pleasing alignment of seats, risers and footboards.

When stands are closed, Wayne continuous vertical front design permits an unbroken sweep of rich wood patterns on gymnasium end or sidewalls for the most beautiful panelling effects ever created with gymnasium seating. The wood is fine-grained, highly splinter-resistant, deep color Philippine Mahogany or vertical grain Douglas Fir.

Greater Strength—New continuous lengths of seat, riser and footboards are Wayne-Welded, fully tested and guaranteed as strong or stronger than comparable sectional lengths of the same wood. No special understructure is required. Standard Wayne girder-bridge type supporting understructures are employed.

Motorized Operation—Wayne's fully-automatic motorized Rolling Gymstand system operates even the longest continuous section quietly, smoothly and efficiently. Turn a simple key switch and the section glides into position. No manual operation time, no jamming, ever! No special building requirements or special tracks.

A new rolling foot system provides 250% more floor support for spectator load than any other gymnasium seating, greatly increasing stability and distributing the load more evenly over the full depth of the structure.

For increased seating capacity in your gymnasium, for outstanding appearance and maximum operating efficiency, look into Wayne's new Continuous design now. Here is more proof that Wayne builds Gymnasium Seating better.

WAYNE

WAYNE IRON WORKS, WAYNE, PENNSYLVANIA

Rolling Gymstands • Outdoor Grandstands • Folding Partitions • Basketball Backstops

Unbroken sweep! New Wayne Continuous Gymstands with Wayne vertical front styling and rich mahogany tones give gymnasiums impressive new look and feel of spaciousness; ***plus... still more seating capacity.***

(Circle No. 737 for more information)

1. Unique Memory Monitor "remembers" program being sent to each room—eliminates confusion in communicating with classrooms.

2. Split-Second Emergency Communication—Flip one switch and you're *automatically* in touch with every school area.

3. Easy Operation—Press a key and talk to any selected classroom or group of rooms. No experts needed to operate an RCA Sound System. Effectively streamlines school administration.

4. Versatile Programming—radio, phonograph records, tape recordings, or "live" programs readily transmitted to all or specified locations. Flexibility of programming enriches curriculum; increases teacher efficiency.

5. Talk-Back Feature—Special two-way loudspeakers in classrooms allow direct, natural-voice communication with central console. Monitor light on speaker prevents "listening-in" without consent—assures classroom privacy.

VERSATILE RCA SOUND SYSTEMS ADAPT TO ANY SIZE SCHOOL, ANY ACTIVITY

Whatever your school size or requirement, you can depend on RCA Sound to step up efficiency in administration and to add new flexibility to teaching programs. And, prices are far lower than you'd expect for these RCA Sound System features that do *more* for you . . . reliably . . . simply . . . with versatility. There's an RCA System which will meet the exact needs of your school.

Ask your RCA Engineered Sound Distributor. He'll plan an RCA Sound System for you. Your RCA Distributor is in your Classified book under "Public Address and Sound Systems." Or, get the RCA School Sound story in a file-size brochure by writing directly to us . . . Sound Products, Dept. L-110, Radio Corporation of America, Camden 2, N. J.

RADIO CORPORATION of AMERICA

SOUND PRODUCTS, CAMDEN 2, NEW JERSEY

In Canada: RCA VICTOR COMPANY LIMITED, Montreal

Tmk(s) ®

(Circle No. 727 for more information)

Vol. 2 No. 10

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FINER WORKMANSHIP MEANS LONGER PROJECTOR LIFE

Operation of projector mechanisms in "run-in" cabinet is one of many quality controls that assures long life of Victor projectors.

Victor sets highest standards for projector quality

Victor 16mm sound projectors have justly earned a reputation for turning in *extra* years of trouble-free service. Just take a look at any new Victor to see why—and you'll find the answer in quality workmanship and materials that meet the most rigid specifications.

For example, *every* projector mechanism is operated continually for 6 hours to check performance before complete assembly. *Each* amplifier is fully tested with a battery of electronic instruments. Sapphire-tipped film shuttles are *individually* inspected under high magnification. Measurements of light output and movement of film over sound drum are made for *every* projector to assure brightest pictures and clearest sound.

This kind of attention to detail has always paid off in greater dependability and lower maintenance costs with Victor projectors. So compare workmanship before you order your next projector—and you'll be sure to specify Victor.

NEW VICTORS FOR OLD — FREE

We wish to obtain the ten oldest Victor sound-on-film projectors still in use—and offer to exchange them for brand-new Victor Assembly 10 models at absolutely no cost. If you believe that your Victor qualifies, simply fill out coupon and mail before this offer expires on December 31, 1958.

MAIL BEFORE DECEMBER 31, 1958

Victor Animatograph Corporation
Division of Kalart, Plainville, Conn.

I believe that the following Victor sound-on-film projector is one of the 10 oldest still in use:

Model ..... Serial No. .....

Name .....

Position .....

Address .....

City .....

Zone ..... State .....

SM-2

(Circle number 723 for more information)

SCHOOL MANAGEMENT

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EDUCATIONAL PRESS ASSOCIATION OF AMERICA

A publication of
SCHOOL MANAGEMENT MAGAZINES, INC.
22 West Putnam Avenue, Greenwich, Conn.
Townsend 9-8585

President and Treasurer, W. S. Kline; Vice President, J. W. Harris; Vice President, A. J. Kaiser; Secretary, E. D. Kline.

SUBSCRIPTIONS: In United States and Possessions, one year $8.00. Canada, one year $10.00. Foreign subscriptions $12.00. Single copies $1.00. When possible, tearsheets of articles will be provided at a cost of $.50 for each article requested, to cover costs of handling.

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Include old address as it appeared on previous issues (if possible send label from magazine). Do not depend on the post office to forward either the change of address or your magazines.

New TORO 32-inch Whirlwind* steers with your fingers!

Here's the new 32-inch Whirlwind that out-cuts, outmaneuvers, outlasts all other rotaries of its size! Look at the features: front "dish" wheels are angled and spring-mounted for quick, easy turns in any direction while giving a smooth, even cut over uneven terrain . . . a single-wheel, steerable sulky turns the machine around a 14-inch tree trunk . . . a *circular* steel housing with side discharge gives more efficient cutting—puts more of the 9 horsepower to work on the blade . . . a hinged hood guards belts and pulleys for trimming under shrubbery . . . fast height of cut adjustment from the top of the double-reinforced housing.

Look over these and the many other features before you buy any other big rotary. Or better yet, drop us a card and we'll have your nearby Toro distributor show you *on your own grounds* why the big new Whirlwind 32 is the big news in rotary mowing!

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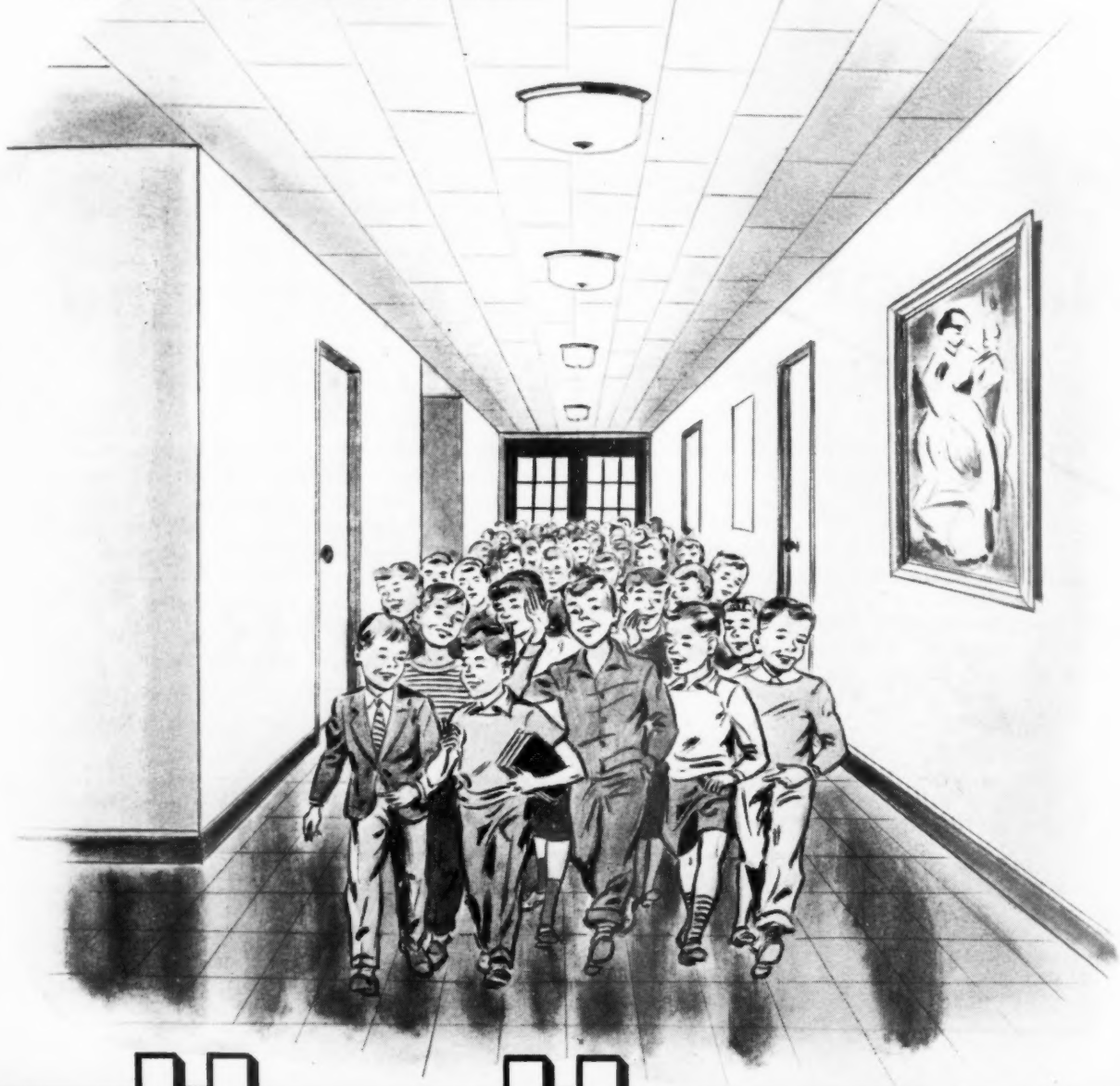
(Circle number 700 for more information)

4½ million new pupils in U.S. schools call for efficient multi-use of space

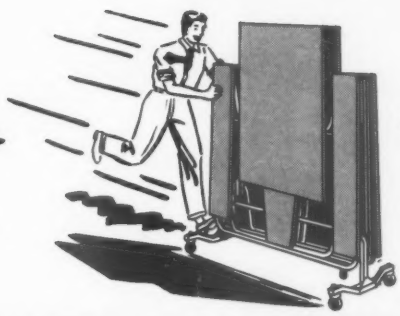
How efficient is your program involving multiple use of space? Are you getting the maximum use of your multi-use room, your gymnasium, auditorium, even your corridors? Are you enjoying with your present equipment, for example, the rapid conversion of a gym to lunchroom during noon hour without disturbing full morning and afternoon sessions? We would like to show you how other school districts are making greatest use of available floor space with *extremely portable* Erickson equipment.

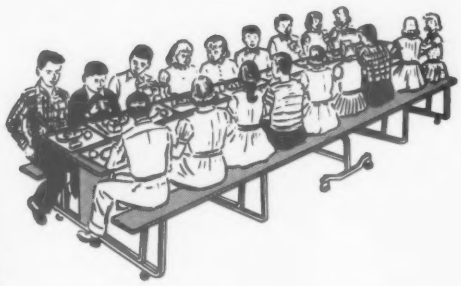
Portable tables with benches, tables without benches (in all popular sizes) to solve your seating for eating problem . . . a choral riser that wheels anywhere and sets up in seconds for a full choir . . . a stage that wheels anywhere and sets up in seconds for countless uses . . . a bandstand that gives you wide flexibility in space needs . . . a ping pong table on wheels that sets up for fun instantly, folds-a-way for compact storage out of the way . . . these are up-to-the-minute products available to schools for *efficient* multiple use of space. *Write us! Let us send you complete information.*



HALDEMAN HOMME MFG. CO.

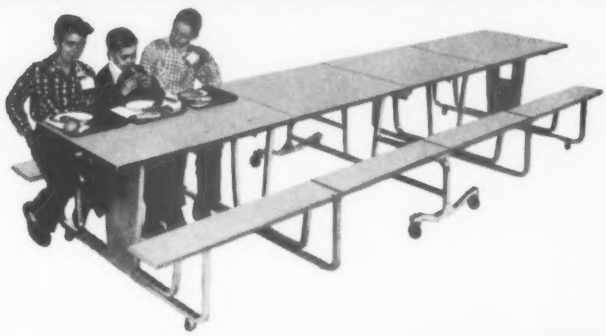
"Where do we eat?" *"Right here, kids!"* *"Mmm-mm!"*





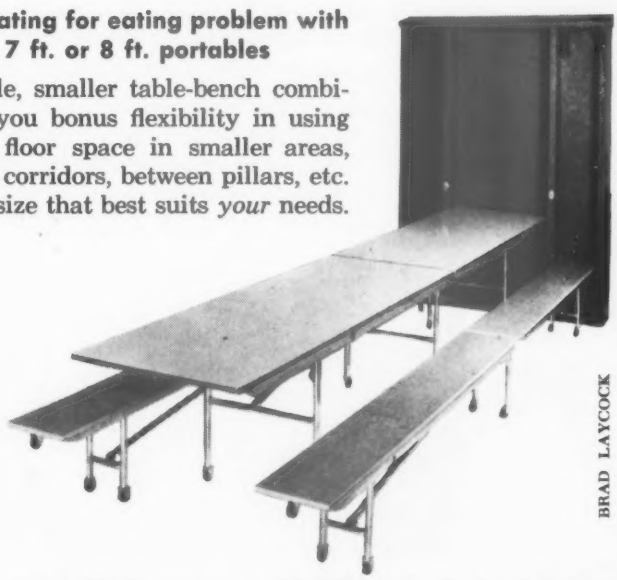
Solve your seating for eating problem with larger 12 ft. or 14 ft. portables

They wheel where you need them for immediate use. Here's maximum capacity (for up to 24 youngsters per table) with minimum storage area needed. Seating for eating for up to 240 youngsters (10 – 14 ft. portables) stores in only 4½ by 10 ft.!



Solve your seating for eating problem with smaller 6 ft., 7 ft. or 8 ft. portables

These versatile, smaller table-bench combinations give you bonus flexibility in using all available floor space in smaller areas, such as along corridors, between pillars, etc. We have the size that best suits *your* needs.



BRAD LAYCOCK

Solve your seating for eating problem with wall-type tables with benches

Ready for instant use at the touch of a lever, thanks to automatic hydraulic action ... these tables store away in the wall or on the wall ... out of the way. No separate storage area required. Tables may be used without benches for adult meetings, etc.

Let us show you how the Haldeman-Homme complete line of Fold-A-Way lunchtables with benches can help you achieve maximum utilization of your multi-use room

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Gentlemen: Please send further information on your Fold-A-Way:

☐ 12 & 14 ft. Portables ☐ 6, 7 & 8 ft. Portables ☐ Wall-type Tables

I'm also interested in:

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NAME_____ TITLE_____

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CITY_____ STATE_____

(Circle number 714 for more information)

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Contact your representative or send direct for catalog and complete details.

Educators MANUFACTURING COMPANY
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(Circle number 711 for more information)

LETTERS

EXPLORATIONS IN EDUCATION

SIR: Each month I am more and more impressed with the excellence of your magazine. What makes your publication quite unique among comparable efforts is the forward-looking nature of your articles and news notes and your obviously high interest in research.

At a time when much of the literature consists of reports of status or articles on what should be done, your descriptions of experimental approaches are particularly refreshing. Your efforts to highlight frontier developments are bound to have influence on that important segment of teachers and administrators who are genuinely concerned about improving the quality of education in the United States.

Congratulations—and keep up the good work.

J. LLOYD TRUMP, DIRECTOR
COMMISSION ON THE EXPERIMENTAL STUDY OF THE UTILIZATION OF THE STAFF IN THE SECONDARY SCHOOL
URBANA, ILLINOIS

BOOKS ON EXHIBIT

SIR: The item on "How to select junior library books," *(SM, Sept. '58)* indicates that our book exhibits for school systems are accompanied by a representative of Books on Exhibit. This is not the case. We would appreciate your correcting this impression. Actually, these junior library books are shipped to the district in carefully constructed cases which are easy to unpack and repack. Each of the 600 books is protected by a plastic cover, and each is numbered to conform with a number in the printed catalogs that accompany the display. There is no need for us to send someone with the books since we neither solicit nor accept orders. The whole purpose of these exhibits is to provide teachers, administrators, and librarians the opportunity to examine, at leisure, a complete, representative and organized collection of new library books. There is no fee or obligation beyond the small charge of shipping the books to the next exhibitor in the state.

R. B. KENT
BOOKS ON EXHIBIT
IRVINGTON, N. Y.

■ *Our apologies to Mr. Kent for the error and to all grammarians for using a double negative when we wrote "the exhibits are not unaccompanied."* ED.

Here's why teachers call ROYAL THE PERFECT ELECTRIC FOR SCHOOLS

The Royal Electric keyboard is so easy to master that even beginners learn correct stroking fast. And because of an exclusive Touch Control®, students find the transition from manual to electric surprisingly simple.

New Twin-Pak, the instant-changing ribbon that hands never touch, that never needs winding, is typical of the exclusive and practical convenience features Royal offers. And there are many other such features.

Take a close look at the positioning of the Royal Electric controls, the angling of the keyboard. Every feature was scientifically designed and placed for maximum convenience and greatest efficiency.

Today—more and more of your graduating students will encounter the modern Royal Electric on their very first jobs.

It's another important reason you should make *sure* your students receive this valuable training.

For a free demonstration and trial right in your own classroom, call your Royal Representative.

ROYAL® *electric*

—There are more Royal Typewriters in office use than any other make.

Product of Royal McBee Corporation, world's largest manufacturer of typewriters.

(Circle number 731 for more information)

Architects...School Administrators...
this is **MODUWALL**

A new concept in classroom wall utilization that completely outmodes conventional fixed-to-the wall chalkboard and display equipment.

Brunswick **MODUWALL** has already been field proven in scores of installations... it is now available for your new or remodelled schoolrooms

Invest in

SCHOOL EQUIPMENT

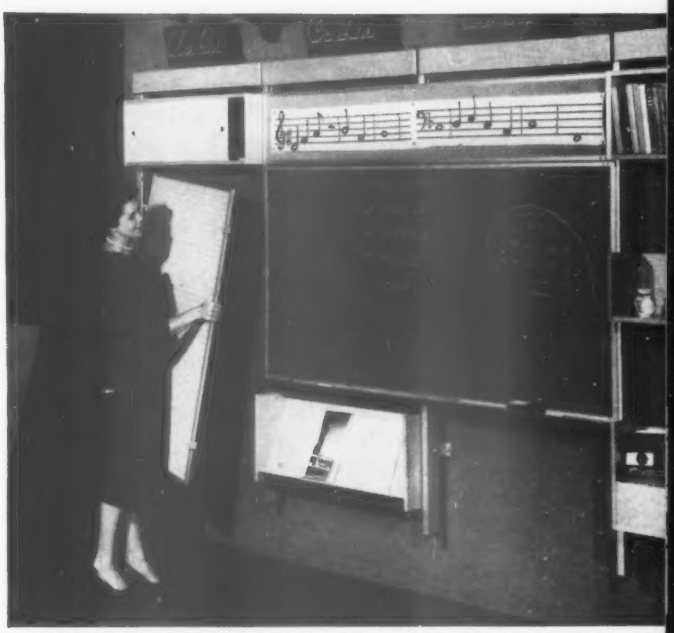
for better learning . . . for lasting value

FLEXIBILITY INSURANCE—Brunswick Moduwall gives you complete classroom flexibility over the years . . . as school population shifts . . . as classroom purposes change. By simply changing the *kinds and heights* of panel units, you can transform a kindergarten into a fifth grade, a fifth grade into a social studies room, a math class into a kindergarten! Today's elementary schoolrooms become tomorrow's educationally perfect junior and senior high rooms—without costly reconstruction. With Moduwall your classrooms are never obsolete . . . always ready for change in grade or function!

EVERY WRITING, DISPLAY REQUIREMENT SERVED—Moduwall accessories can be mounted in minutes. 4 Chalkboard sizes, 6 Tackboards, 1 Pegboard, 3 Open and Closed Cabinets, 2 Magazine Racks, 1 Easel, 2 Flannelboard sizes and Utility Boards to choose from! All are interchangeable!

TEACHER'S DREAM—Only Moduwall gives your teacher full freedom to use the teaching aids that best suit *her* individual purposes . . . and teaching techniques. She can change panels as instruction projects and assignments change...from day to day, semester to semester, as she desires. (We'll be happy to help you plan an efficient Moduwall Panel Inventory to meet your immediate and long-term needs.)

AND MODUWALL IS ECONOMICAL, TOO!—Moduwall not only gives you scores of educational advantages . . . but actually costs less to install and use now . . . and over the years than conventional wall fixtures. It will pay you, your teachers and your community well to investigate . . . and have your architect specify . . . and use Moduwall!



Only **MODUWALL** *gives you the amount of* CHALKBOARD *you want . . . where you want it . . . when you want it.*

Only **MODUWALL** *gives you the amount of* PEGBOARD *you want . . . where you want it . . . when you want it.*

Only **MODUWALL** *gives you the amount of* TACKBOARD *you want . . . where you want it . . . when you want it.*

Only **MODUWALL** *gives you the amount of* EASEL, OPEN AND CLOSED STORAGE, MAGAZINE RACK *you need...where you want it...when you want it . . .*

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THE BRUNSWICK-BALKE-COLLENDER COMPANY
School Equipment Division, Dept. 1210
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Chicago 5, Illinois

PLEASE send more information on Moduwall to

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Title.....

School/Firm.....

Address.....

City.....*Zone*.....*State*.....

SM WHERE TO GET HELP

A guide to useful information

CONSTRUCTION

A great book. Here, in a single highly readable and handsomely printed volume, is one of the finest works on school building ever published. It is not a "how-to" book, nor is it the sort of thing a schoolman would just dip into occasionally for ideas. Rather, it provides a comprehensive frame-of-reference that will permit a school board and superintendent to approach school construction intelligently and securely.

"Schoolhouse" is divided into four basic sections: the approach, action, environment, and results. It covers subjects like "How to choose an architect," "Convincing the community," and has long sections on technical areas such as heating and plumbing, acoustics and lighting. Researched by architects Eggers and Higgins, edited superbly by Walter McQuade and financed by the Aluminum Corporation of America, it appears to suffer from no bias of an educational or technical nature. Best of all, it reads easily —lightly and humorously when pertinent, heavily documented when needed. We commend this book to any schoolman about to commit his district's funds for new construction.

SCHOOLHOUSE: *What To Do When Your District Needs a School. Edited by Walter McQuade. Published by Simon and Schuster, 136 W. 52nd St. $10.00.*

ADMINISTRATION

Theory revitalized. If you want to probe more deeply into the theories behind educational administration, "Administrative Theory in Education" will help.

Designed to "educate the educators," and based on a joint seminar of the University Council for Educational Administration and the Midwest Administration Center, the book outlines the various facets of educational administration—problem-solving, decision-making, psychological and social factors and behavior patterns—found in organizational structures.

Warning: This is not a "how-to" handbook, but a provocative presentation of the details involved in administrative theory-building, designed to encourage you to try your own hand at developing workable ideas.

ADMINISTRATIVE THEORY IN EDUCATION. *Edited by Andrew W. Halpin. Published by the Midwest Administration Center, University of Chicago, Chicago 37, Ill. $3.00.*

HANDICAPPED

Teaching shut-ins. This little 20-page booklet is a handbook for teachers, administrators, parents, and physicians on "teaching by telephone," with suggestions for homebound and hospitalized students. It is based on a study of hundreds of cases in which application of a home-to-school telephone device proved a great benefit in assisting immobilized children. Although the study on which it was based was conducted by a commercial firm, it had the supervision and assistance of an advisory committee of authorities in school administration and the final manuscript was edited by members of this committee. The booklet covers the cost of such teaching, methodology, and procedures for setting up a program.

HOW TO TEACH SHUT-IN STUDENTS BY TELEPHONE. *Special Education Division, Executone, Inc., 415 Lexington Ave., New York 17, N. Y. Free.*

HANDWRITING

How to improve. This compact little book isn't a text and isn't a teacher's guide. Written for the layman, it offers—in light and easy fashion—an analysis of writing faults with instructions on how to improve legibility. There is a special section on how to help youngsters develop and maintain good writing habits, and still another chapter on word games that utilize handwriting. The author carefully avoids the cursive-manuscript controversy.

IMPROVE YOUR HANDWRITING. *McGraw-Hill Book Co., by Claire Trieb Slote, 330 W. 42nd St., New York 36, N. Y. $3.50.*

DISTRICT REORGANIZATION

Small districts note. This book contains the complete report of the AASA commission on school district reorganization. It points out that the big trouble with American education is not spineless kids and soft teachers, but the too-small district that does not provide a broad enough educational program. The commission says a district should have at least 40 teachers and 1,200 students in grades one through 12 in order to give its pupils a well-rounded program. It warns against the popular idea that school district reorganization is an economy measure and points out that the true reason for centralization or consolidation is to get more and better education per dollar spent.

SCHOOL DISTRICT ORGANIZATION. *American Association of School Administrators, 1201 16th St., N. W., Washington 6, D. C. $5.00.*

CURRICULUM

Secondary School Art. A new 70-page curriculum guideline, complete with numerous drawings, illustrations and color designs. The 18 sections of the guide include such topics as: Art Serves the Pupil, The Art Program, Role of the Teacher, Purpose of a Guide, The Art Room, Work Habits and Attitudes, Youth and Art in the Junior High School, Adolescence and Art in the Senior High School, Junior High Art, Art I, Art II, Applied Arts, Evaluation of Art Program, a Glossary of Art Terms, a Bibliography of Books on Art Education, a Suggested Picture Library for Schools, and Visual Aids Available for Secondary School Art Instruction.

SECONDARY SCHOOL ART. *Curriculum Guidelines Bulletin No. 14 of the Springfield, Mo., Public Schools. Order from Robert C. Glazier, Director of Public Information and Publications, 940 North Jefferson, Springfield Public Schools Administrative Offices, Springfield 2, Mo. $3.*

AUTOMATION

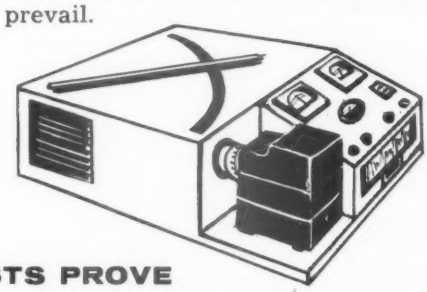
Implications for schools. This valuable pamphlet summarizes the discussions and agreements produced by the 10th annual meeting of the National Conference of Professors of Educational Administration. Although far more comprehensive books are available on the subject of automation itself, this publication provides an easy to read and carefully limited insight into the educators' responsibility in an automated society.

AUTOMATION: ITS MEANING FOR EDUCATION ADMINISTRATION. *Bureau of Publications, Teachers College, Columbia University, New York City, N. Y.*

NEW NEW NEW RADIANT LENTICULAR SCREENS

FOR LIGHTED ROOM PROJECTION

Of vital importance to all users of audio-visual aids is this new and different kind of "lenticular" screen surface—the result of more than 7 years research and development work by leading optical engineers and physicists. Actual tests have definitely proven that this surface is extremely effective for projecting in undarkened or even lighted rooms where no extreme or unusual ambient light conditions prevail.



TESTS PROVE

Special electronic testing equipment is used to check the efficiency of all reflective surfaces by Radiant's engineering staff. This equipment measures accurately light gain (brightness), percentage of fall-off, quality of reflection, and other factors vital to good projection results. The new Radiant "lenticular" surface has been subjected to these exacting tests with the following findings:

1. Radiant "lenticular" Screens showed a very high brightness gain with a minimum of fall-off at sides.
2. Radiant "lenticular" Screens provide increased brightness to an area 45° to each side of axis, thus offering a 90° good viewing area.
3. Radiant "lenticular" screen surface reflects colors with increased vividness and greater contrast.

THERE ARE MORE THAN 100,000 TINY LENSES on each Radiant "lenticular" screen surface—that concentrate and reflect light with maximum brilliance over a wider viewing area. This surface is fungus and flame proof and washable.

THE NEW "EDUCATOR" SCREEN—WITH LENTICULAR "UNIGLOW" . . . screen surface is available in sizes from 37" x 50" through 70" x 70". Exclusive TOEmatic leg lock, all-metal slat bar, extreme height adjustability, and many other features.

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Florida firm designs school that saves money because it's air conditioned

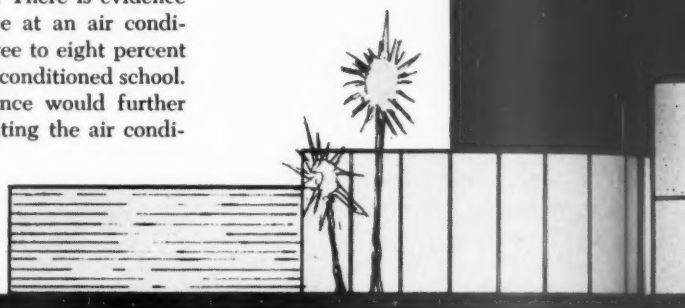
The design of a 20-classroom, 2-story Florida urban elementary school by Connell, Pierce, Garland and Friedman, Miami, Florida, factually proves that, in many instances, air conditioned schools can actually save money on capital investment and, at the same time, completely offset the increased operating cost of the air conditioning system.

HOW CAPITAL INVESTMENT IS SAVED—This school was designed for a densely-populated area of Florida. To take full advantage of natural cross-ventilation and avoid noise distractions, conventional schools have had to be spread out and sprawling. This required large plots. Since school boards have paid as much as 50 to 60 thousand dollars per acre for school property, total acreage is an extremely important cost factor.

Because of air conditioned design, this building consumes only 1.2 acres instead of the customary urban Florida total of 3.1 acres. Thus, 1.9 fewer acres are needed. The resulting capital savings are in direct proportion to the cost of land.

HOW OPERATING COST IS OFFSET—Normally, a school of this size requires four custodians. In this air conditioned design, dust conditions are alleviated to the extent that only three custodians could adequately handle the work. The resulting salary savings would bring the operating cost of the air conditioning system down to $5 to $10 per day.

Many state school laws (including Florida's) provide that incremental teachers' salaries be paid from State to County School Systems on the basis of average daily attendance, rather than enrollment. County taxes must make up the difference when there are mass absences. There is evidence to prove that attendance at an air conditioned school is from three to eight percent greater than at a non-air conditioned school. Thus, increased attendance would further reduce the cost of operating the air conditioning system.



Because of air conditioned design, this school building (including parking facilities) consumes only 1.2 acres, instead of the customary urban Florida total of 3.1.

Number three of a series . . .

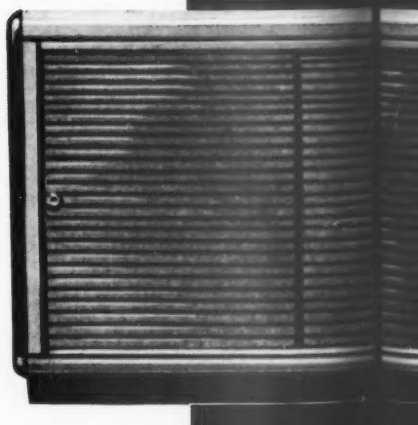
The herman nelson file of

hernel-cool II UNIT VENTILATOR with optional air conditioning

Will the school you are planning *ever* need air conditioning? The answer is definitely—yes. That's why today—less than a year after its introduction the HerNel-Cool II unit ventilator with optional air conditioning has been selected for use in more than 150 schools, which are either air conditioned now or have planned for it.

HerNel-Cool II is the first unit ventilator to offer optional air conditioning, as well as heating, ventilating and natural cooling (with outside air). Units can be installed so the school enjoys the usual benefits of Herman Nelson Unit Ventilation, including the famous DRAFT|STOP system—*the only type of draft control that is compatible with air conditioning.* Then at any time—immediately, or whenever the school budget will allow it—the mere addition of a chiller in the boiler room is all that is needed for complete hot weather air conditioning.

Want information on HerNel-Cool II Unit Ventilators? Write today to Herman Nelson Unit Ventilator Products, **American Air Filter Company, Inc., 215 Central Avenue, Louisville 8, Kentucky.**



AAF

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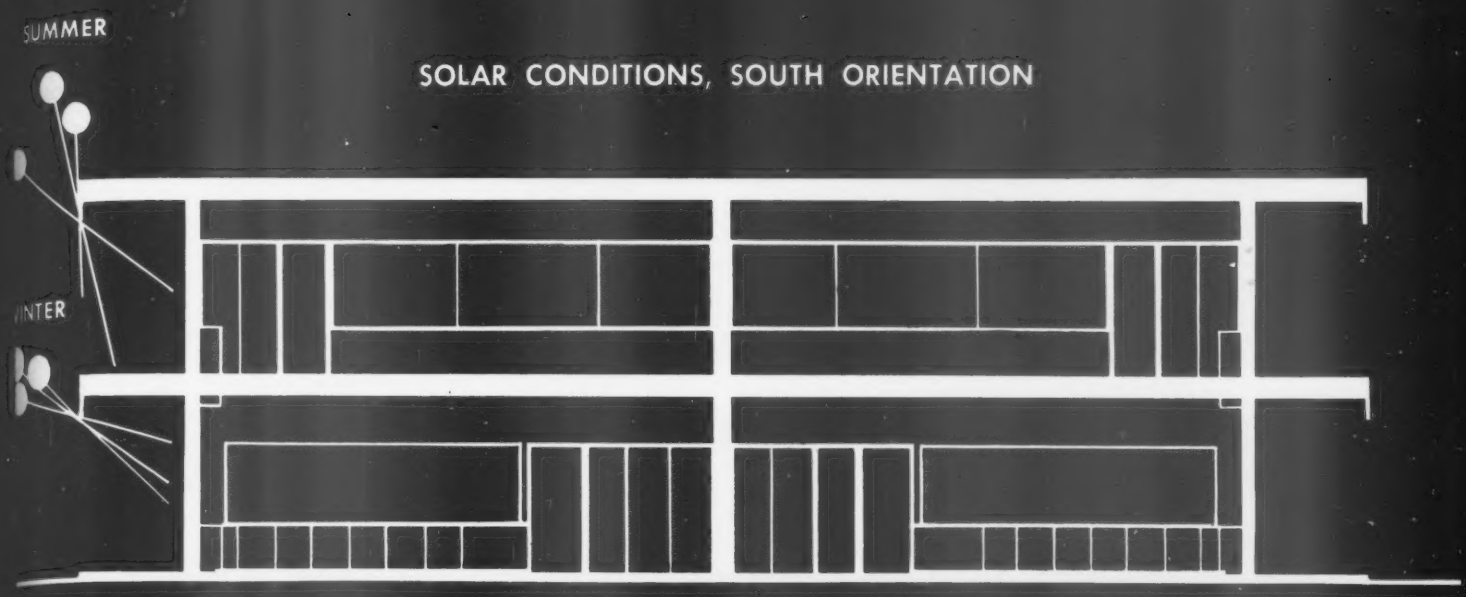
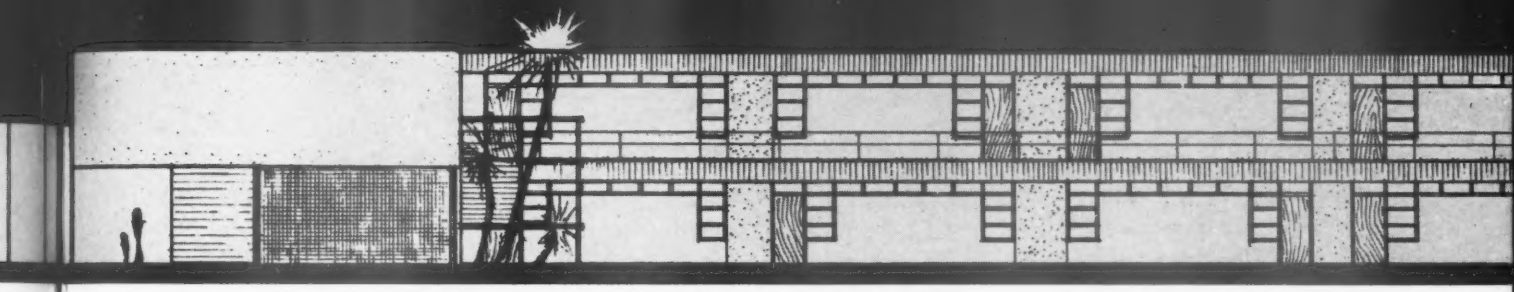
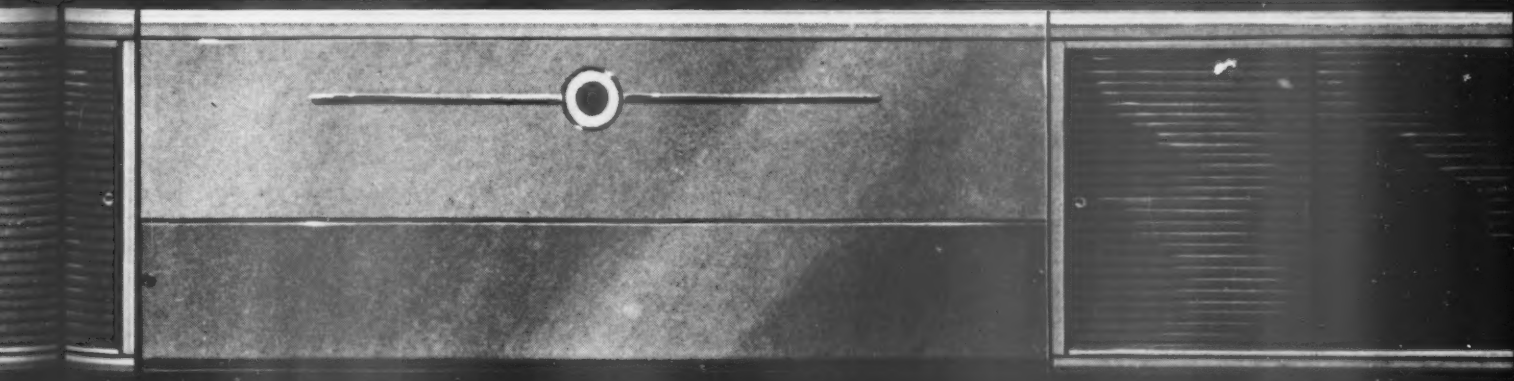


Compact air conditioning design permits simple, functional "steamboat" plan, with space-saving outside access to second floor exterior corridor.



ile of air conditioned school design



HerNel-Cool II units are as attractive as they are efficient—they harmonize with any classroom color scheme. Choice of seven standard colors. Five durable, decorative laminated plastic top patterns. Matching utility cabinets and other accessories.

THINGS YOUR PUBLIC OUGHT TO KNOW

Basic information that schoolmen can use as a part of a community education program

Some random statistics for ready reference

So you think YOUR district is growing

■ Elementary school enrollments will rise from some 22,000,000 in 1958 to about 34,000,000 by 1960-61. This means an increase of 12,000,000 elementary students in only two years. As a result, by 1968 high schools will be deluged with 50% to 70% more students than they can now accommodate.

So you think your district's small?

■ If your school district has 1,200 or more pupils, size-wise it is among the highest 10% in the United States. According to the department of census, here is how the largest 10% breakdown:

25,000 or more	107
12,000 to 25,000	200
6,000 to 12,000	563
3,000 to 6,000	1,180
1,500 to 3,000	2,029
1,200 to 1,500	829

Centralization and consolidation

■ Are you running into opposition on school district reorganization? Opponents should consider this: in 1932, there were 127,526 school districts in the U. S. In 1957, the figure dropped to 50,446. It is hard to believe that many million Americans can be wrong.

Higher education costs rising

■ How much does it cost to go to a good state university? The University of Michigan has released figures showing that an entering freshman *from* Michigan must expect to spend a basic $1,134 for a year's education, including room, board, tuition and books. Actual studies have shown that a Michigan student spends an average of $1,610 per year. Costs for out-of-state students are somewhat higher.

And how much does it cost to go to a private college? The dean of a leading women's college told *SM* her students should expect to spend $3,000 a year, exclusive of transportation. This figure, she emphasized, is conservative.

Lower education responsibilities up

■ When should a child start going to public school? Sooner and sooner, it appears. For example, in 1890 most large cities were supporting kindergartens but no one else had them. By 1920 there were some 9,000 public kindergartens a considerable growth. In 1955, the latest year for which complete figures are available, 1,365,000 children were enrolled in public kindergarten.

And the trend is to go younger still. By 1951, 47 public *nursery* schools had been opened and the number has climbed steadily since.

The world we live in

■ Americans live under a "free enterprise" economic system. But to most people these are just words. Fewer than 5% of all high school graduates in our country have had even one semester course in economics. Almost none have had any practical courses in the workings of our system.

Why text books grow old

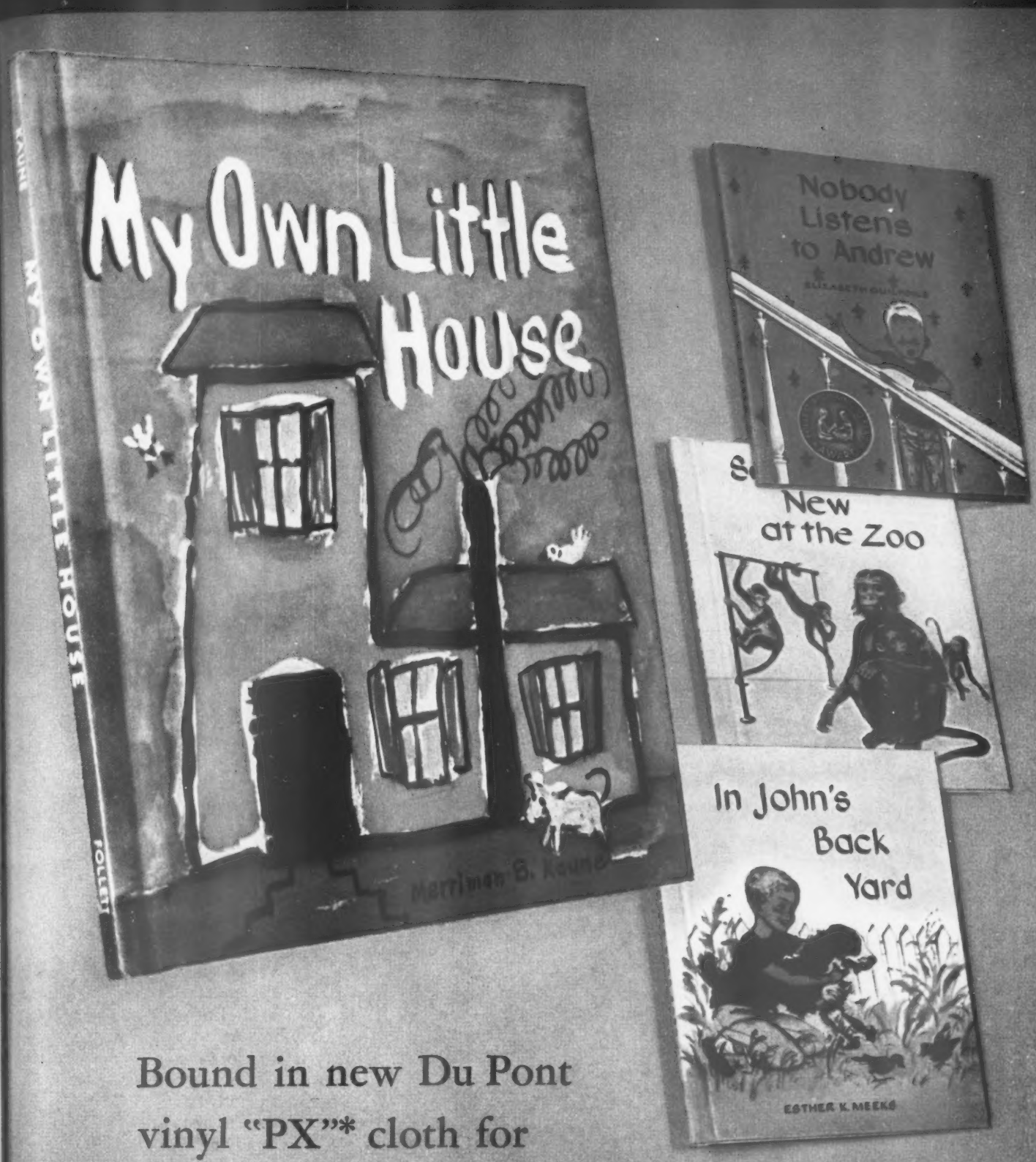
■ Believe it or not, there probably isn't a single child in your high school who was above the age of six when World War II ended. Want more? Consider this: some 57% of the people in this country have no personal recollection of what a major depression is like.

Foreign language instruction

■ 70% of all Americans entering our foreign service speak just one language—English! Only one U. S. Ambassador to a Communist country is able to speak the language of that country. 8,000 Americans are presently studying Russian as compared to about 10,000,000 Russians studying English. Of all 10-year-old pupils in the USSR, 36% are studying English, 35% German, and 20% French.

Laymen getting into the act

■ According to the National Citizens' Council for Better Schools, there were only seven citizen committees in 1947. In 1958, they estimate the number to be between 15,000 and 20,000. The number is growing so fast they can't keep an accurate count.



Bound in new Du Pont vinyl "PX"* cloth for fine printing and exceptionally long wear!

These attractive books are sure to be read again and again. They'll stand up to all the wear and rough handling children can give them, too.

New Du Pont vinyl "PX" cloth is impregnated with vinyl for superior printing and wearing qualities. It offers a more uniform printing surface that gives a better lay of ink and excellent adhesion, truer color reproduction and sharper detail.

And new vinyl "PX" cloth is extra-durable! In tests it proved 10 times more scrub-resistant than pyroxylin materials of the same grade. Bindings stand up to rough handling—resist breakdown at hinges and corners. No wonder the Follett Publishing Company chose new vinyl "PX" cloth for their "Beginning-to-Read" series shown above. (Bound by John F. Cuneo Company, Chicago.)

For free sample swatches and information write to: E. I. du Pont de Nemours & Co. (Inc.), Department CB, Wilmington 98, Delaware.

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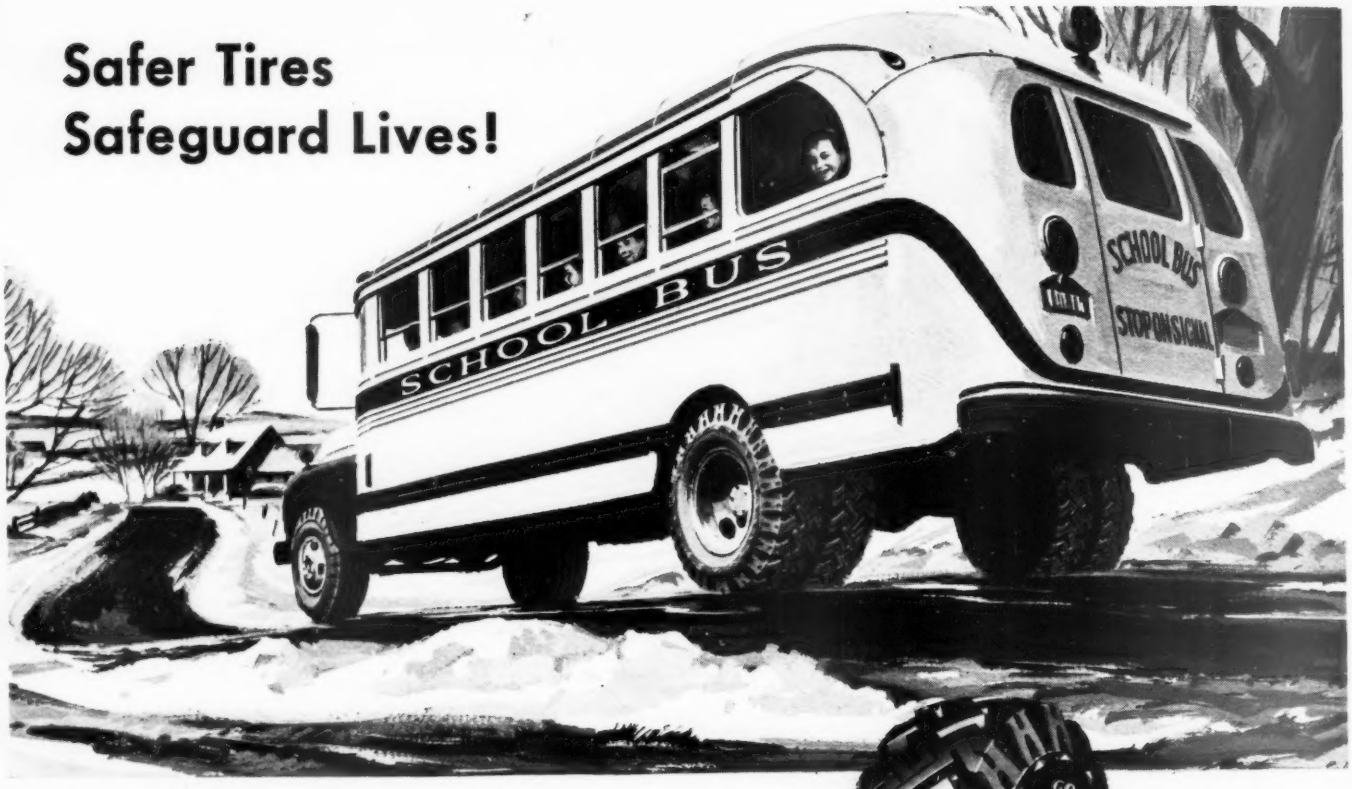

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Up to 35% better traction in mud or snow—as much as 40% more mileage. Broad, flat tread puts more rubber in contact with the road, provides greater skid resistance and start-stop traction. Nondirectional tread design works equally well forward or reverse. Extra-quiet running. Tubeless or tube-type.

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Goodyear's Exclusive Triple-Tough 3-T Cord!

Like steel, tire cord must be *tempered* to be tough. Goodyear's exclusive 3-T process, involving Tension, Temperature and Time, *triple-tempers* cord to make it TRIPLE-TOUGH—to give you longer tire life, lower cost-per-mile!

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A digest of current happenings in public education

New York voters let schools down

Rejections by New York voters of school-bond proposals mounted sharply during the 1957-58 school year, the state's education department reported.

Thirty-seven per-cent of all referendums for new school construction were defeated during this period, as compared with 24% the previous year and 20% in 1955-56.

Officials have blamed the increasing resistance on concern over high local taxes and the general recession. These conditions and others, they said, have made many school voters economy-minded.

Enrollment in the state rose by more than 100,000 last year, and another increase is expected this fall.

The department's report showed that value percentages—dollars received each year out of dollars requested—declined sharply in the period.

In 1955-56, the state's school districts asked their voters for $155 million and received approval for $120 million, or 78%. In 1956-57, the districts asked for $215 million, but received $149 million or 69%.

In 1957-58, the districts asked for $237 million, but received $131 million, just 55%.

In the first six months of 1958, 131 bond proposals were presented to voters in 101 districts throughout the state. Eighty-four passed. However, only 51% of the dollar amount of the proposed issues passed.

Kindergartners to learn reading, writing

Kindergarten children in Arcadia, Calif., are being given a chance to learn to read and write this year under an experimental plan.

Under the plan, all children will be introduced to the alphabet at the start of the year. Those who appear capable will be given a chance to move on to reading and writing. Specific criteria are being developed as a guide to determine whether a child should remain in kindergarten, be placed on a pre-first grade level or assigned to a regular first grade.

At the same time the emphasis on fundamentals in the first two grades will be increased. For example, time spent on arithmetic in the first grade this year will be increased from 50 to 100 minutes a week.

Gifted fours enter Minneapolis kindergartens

A handful of highly gifted four-year-olds have been admitted to Minneapolis kindergartens this fall, even though they will not turn five until February or March.

This new policy, disclosed by Dr. Arthur J. Lewis, assistant superintendent, is designed to give an early school start to the brightest of the bright. It was recommended by a committee on providing for the needs of gifted children.

Minnesota policy has been to admit to kindergarten those children who would be five by December 31 of the entering year, and to consider those with January birthdays if special testing showed them to be capable and ready.

The new program extends the testing privilege to those mature and specially endowed children who are ready at four to begin their adventures in learning.

Although this appears to be counter to the national trend toward requiring an older admission age, the Minneap-

Too good to miss . . .

Something's missing . . . New York State has started a 25-hour-a-week schedule of television instruction for elementary schools, with telecasts emanating from New York City. Only schools in the area unable to use the programs will be those in the big city. Almost none of the city's schools are equipped with television sets and no provisions have been made to obtain them.

Parents in-the-know . . . Palo Alto, Calif., has prepared a small pamphlet for each grade level telling parents exactly what will be taught this year. The course descriptions are digests of the instructional guides used by teachers and stick to basic areas, allowing teachers freedom to introduce individual work in their classrooms.

Bounce to the ounce . . . In Syosset, N. Y., part of a macadam playground at the Locust Grove Elementary School was repaved with rubber, three-eighths of an inch thick. The repaved area was under swings in the schoolyard. Result: Almost total elimination of cuts and scrapes caused by tumbles from the swings. The rubberized pavement is now being installed at the district's 10 other schools.

Initiative . . . A West Los Angeles, Calif., housewife is giving her two junior high school children, and those of her neighbors, an opportunity to learn to think and articulate. The parent, Mrs. Lee Marks, has organized a monthly reading and discussion club. Typical assignment: Read the Declaration of Independence. Typical question: Would you have signed it? Other area parents have been urged to start similar groups.

Vision-Vent® Window Walls of the type shown here are the key to Truscon's low-cost school design. Vision-Vent goes up like other curtain-wall systems—fast and easily. And, it offers this important plus—it's a complete wall with window already in place, completely contained within the depth of the window-framing members. Insulated panel can be in color. Choice of double-hung or projected steel windows. The Truscon design system is based upon a 9-foot module consisting of twin Vision-Vent units with mullion.

In the Truscon design concept, roof of the single-story building is supported by Truscon Clerespan® Steel Joists integrated into the 9-foot module. Clerespan steel joists reduce construction time because they are light, long, easy to handle. They are designed to meet all types of loading conditions. Open web allows passage for ducts, pipes, electrical conduit, as needed. Joists can be left exposed and painted, or an acoustical ceiling can be suspended.

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Get needed classrooms now. Using this Truscon system as a guide, your architect can help you more readily solve the pressing problem of classroom shortages. You can plan classrooms around local needs, both current and future. You can provide for expansion.

Speed and economy. This application of multiple Truscon products takes advantage of the speed and economy of off-site construction. Standard steel building products are most economical, and are readily available when you need them.

Class A, fire-safe construction. Simplified construction methods and modular design provide a permanent, high quality school building that will be an asset to your community. This is Class A construction. Materials are fire-safe. And, because all these Truscon products are *steel,* they are strong, long-lasting, safe. Original building dollars go farther, serving your community for years.

Expand as needed. This type of construction has been planned with insulated end walls which can be removed. This means that additional space can be added, and the end wall re-used. Additions can be made rapidly, easily, and in perfect architectural harmony. Your best protection against early obsolescence is provision for easy expansion.

Get the facts now. Truscon will work with architects, contractors and builders to develop the most efficient use of Truscon Standard Steel Building Products for public and private schools. Start planning today by sending coupon below.

Truscon Ferrobord® Steeldeck is welded to the top of Clerespan joists to produce a fire-resistant roof. Ferrobord is light, easy to handle, easy to place. Long lengths span three or more purlins. It roofs large areas quickly. Top surface is ideal for the application of insulation, and built-up waterproofing.

Truscon Steel Doors and Frames are easy to hang, easy to finish. They can't warp or stick, are fire-resistant. They offer low initial cost, low maintenance cost, safety and durability.

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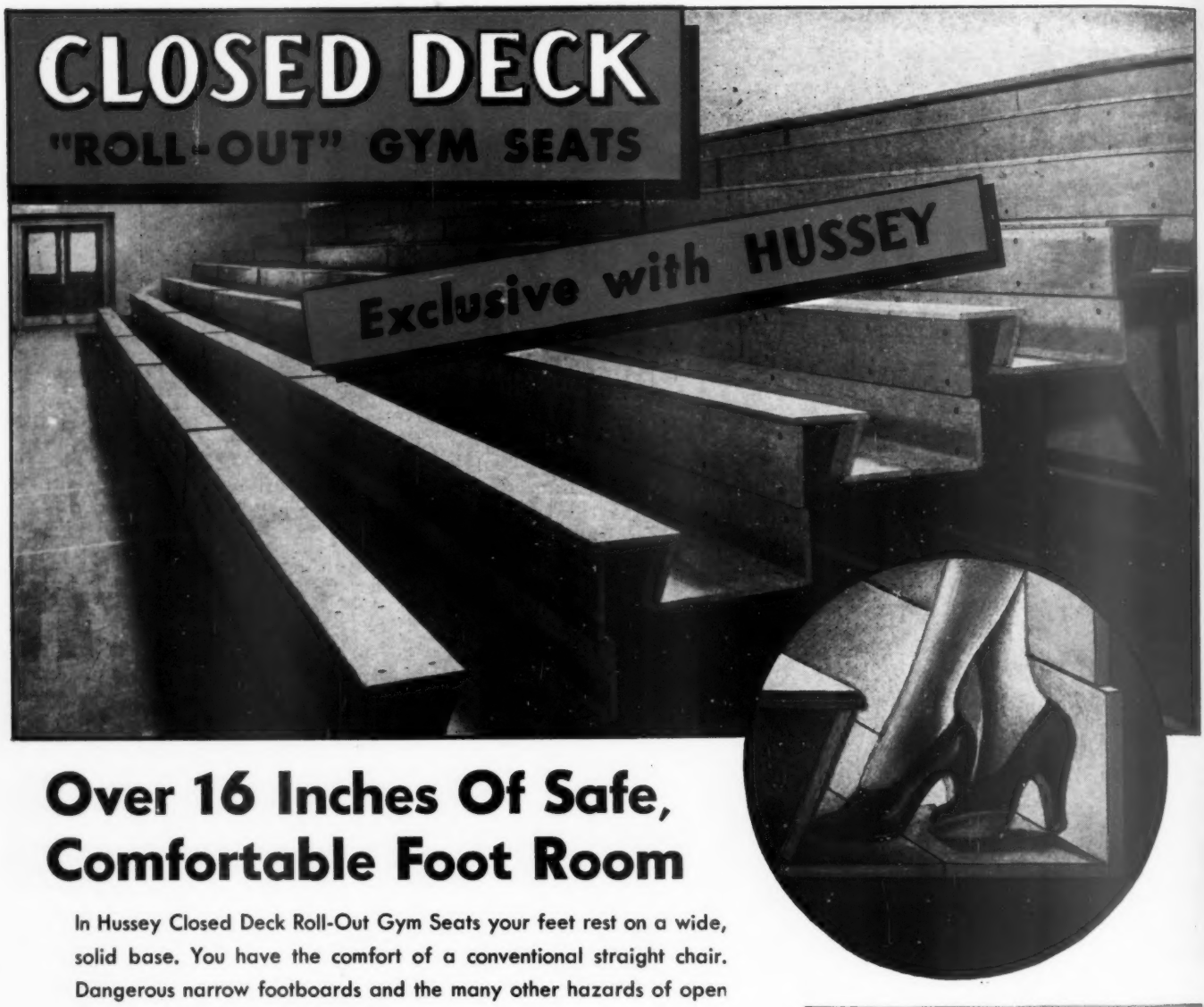

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The completely Closed Deck prevents the loss of articles under the stand, reduces fire hazards, makes possible a lower insurance rating, and gives the spectator a complete sense of safety.

Hussey Closed Deck Roll-Out Gym Seats are also quicker and easier to clean; they can be rolled back without first sweeping under the stand. This saves time and means reduced janitorial costs.

In addition to their many structural advantages, Hussey Roll-Outs enhance the appearance of the auditorium. When closed they present a beautifully finished perpendicular wood wall. Available in Mahogany if desired.

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585 RAILROAD AVENUE NORTH BERWICK, MAINE
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olis program will actually cover only a very few exceptional cases.

And, in answer to commonly cited statistics which hold that emotional and academic trauma result when the extra-young are admitted to school, Lewis said that a research study in that field had disproved these fears.

School board quits in bus buying dispute

The three members of the Greensboro, Vt., school board resigned at a special town meeting called to give voters an opportunity to vote for the purchase of a school bus.

The voters turned down the proposition 60 to 20.

The town has always hired a bus service for students. This year the one bid the board received was considered too high. When the bidder declined to accept offers of less money, the board put the issue up to a town vote at a regular meeting last March. The voters turned it down.

The school board had the authority to buy a bus on its own as long as it stayed within the budget. But members thought the voters were entitled to an expression of an opinion. Board Chairman Laura Drown, who voted against the purchase of a bus, said she resigned as she felt she had done all she could and just did not know how to cope with the problem.

Children catch TB from bus driver

Tragedy has stricken eight school children (*and possibly 11 others*) in Whitesboro, N. Y.

All regular riders on one particular school bus, the children were exposed to contagious tuberculosis, carried by the driver who was discovered to have the disease in June.

Eight of the 283 student passengers have since contracted TB, and 11 others have shown signs of the disease.

Paddle pupils to develop discipline

A Los Angeles County grand jury, concerned over school discipline, recently recommended a return to corporal punishment in the public schools.

In sponsoring the return to "hickory stick" discipline, the jury urged the schools to:

"Revive with deeper understanding and improved techniques, the institution of corporal punishment, since physical chastisement is of vital significance to children; legal restrictions should be relaxed and parents should learn effective application."

Among school personnel, reaction to the recommendation was guarded. Other more cautious, less controversial methods of discipline were suggested as substitutes by persons who consider corporal punishment too drastic a disciplinary measure.

Cut-back on desserts saves school time

In Parma, Ohio, school lunch menus have been reduced as a method of saving time.

The schools have been in the habit of serving a wide variety of foods each lunch-hour, Superintendent Paul W. Briggs said. He indicated that a glance at the Parma lunch menu made it seem as if the schools were "competing with the Statler Hotel."

This year the schools—particularly the junior high school—are cutting down on the variety, especially of desserts. The time consumed by students deciding between four sweet offerings was the main stumbling block to smooth lunch operation. "We just can't take the time for a child to stand in line and choose between three and four desserts," Briggs said.

The Parma situation has been complicated by lack of warehouse space, so that food for meals must be purchased daily. To combat this difficulty the system has been campaigning to convince high school students to eat lunch at home.

School insurance plan hit by parents' group

A dispute over who should sponsor accident insurance for school children has broken out between the United Parents Association and New York City's board of education.

For the past five years the parents' group has operated its own insurance plan with the blessings of the board. Now the board, under the guidance of Administrator Charles Gilman, is considering sponsorship of low-cost, school-associated accident insurance.

While formulating its own plan, the board has withdrawn approval of the parent association insurance. The parents have said that they will continue to operate their program this fall regardless of what action the board takes.

Cancer find uncovered by teen-agers

Basic findings in cancer research, uncovered previously by only a few of the world's leading scientists, were made by five California teen-agers.

The youngsters experimented at San Francisco's San Raphael High School with home-made duplicates of the advanced lab equipment of the University of California.

They spent weeks in delicate experimentation with mouse livers, during an advanced summer seminar for bright high school students.

Their research verified the fact, recently discovered by foremost Japanese and American scientists, that some substance in a cancerous liver destroys its own enzyme.

The work done by these students is another in a growing list of accomplishments by teen-agers given a chance to do advanced scientific work on their own. (*For other examples, see page 49.*)

Parents organize to supplement schools

A growing parents' movement in Lakewood, Ohio, a Cleveland suburb, is acting to supplement school offerings in language study and science. Spearheaded by the non-profit Lakewood Foundation, the parents have organized classes in French and science for grammar school children.

Says Stephen J. Knerly, a foundation trustee: "We have no quarrel with the board of education or the school administration . . . the people of Lakewood have confidence in their school system . . . the system is the center of learning in the community, but it must never be the boundaries of learning."

The foundation courses are now attended by 150 students. Each pays 50 cents an hour for the lessons and this money is used to pay professional

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teachers. Classes thus far have been held in the town library.

The fall's program includes classes in French, Russian and science. The Russian classes, according to Knerly, have been in great demand and plans now are to allow adults to study along with the children.

The foundation was inaugurated last winter by a group of parents disturbed because the public schools did not offer what they consider sufficient language and science instruction at the grammar school level. More than 250 parents are now members. The group felt strongly that foreign language should be taught to six-year-olds.

Lakewood Superintendent William B. Edwards has admitted he knows little about the foundation but said that its program sounds like a "notable achievement."

Auxiliary police form school night watch

Sixty auxiliary police armed with billies but not guns are on patrol at the seven schools of the Herricks, N. Y., school district where in the last year vandals have done an estimated $6,500 damage to school property.

According to Leonard McCaimbridge, superintendent of school grounds in the district, the police will pick up any children found on school grounds after 8 p.m. The children, he said, will be turned over to their parents. Each school will be guarded by two patrolmen working two-hour shifts during the night.

In the last year, youthful vandals broke windows in schools, defaced walls with paint and crayon and ripped weatherstripping from windows. The board has sent out notices to the 5,200 families in the district advising them of the police guard. The police were organized some years ago for civil defense work.

Teachers out in the cold again

Because of high rents, teachers in the fashionable suburban community of Greenwich, Conn., are having a tough time finding homes.

The teachers, many of them married and with children, are being helped by the housing committee of the Greenwich Council of Parent-Teacher Associations. But the pickings have been slim.

Most available apartments in the area rent for $150 to $300 a month. An average teacher with a wife and one child would clear about $332 a month, after deductions.

Dr. Kenneth C. Coulter, assistant superintendent of schools, said that the basic problem Greenwich faces is to peg teachers' salaries to what would be realistic living costs.

Although the problem is most acute in a district such as Greenwich, many systems throughout New England and along the Eastern seaboard have reported similar experiences.

Mechanical teacher for the Three R's

A machine designed to substitute for the human instructor in elementary subjects such as arithmetic, spelling and reading has been patented by Dr. B. F. Skinner, a Harvard professor of psychology.

The machine used to obtain the patent illustrates operation of the device as a teacher of arithmetic. Problems printed on tape come into view one at a time, and the answers are punched elsewhere in the same type.

If a problem, for example, is to multiply 48 by 12, the pupil indicates his answer by moving a number of sliders, one for each digit. Then he turns a crank. If his answer is right, a bell rings and the tape moves on to the next question. If he is wrong, nothing happens, and he has to try again.

The machine combines immediate "grading" with insurance that the pupil will be able to solve easy problems before moving on to complicated ones.

Brawn breeds brains two studies contend

The high school athlete, always portrayed as the dunce of the classroom, is actually smarter than the average pupil, a Minneapolis study shows.

The study compared the academic accomplishments and achievements of 1,859 letter-winning boys with those of a norm group of 582 boys and girls.

The athletes in general scored above average in high school class rank and on college aptitude tests, and came out very slightly below average on an English test.

The intellectual cream of the muscular crop—tennis players—as a group took top honors in each of these three areas. Wrestlers consistently came out on the bottom. But even athletes in the lowest scoring groups generally were not much below the level of the average nonathletic students.

It was felt that the athletes' high

scores could be accounted for by the fact that they must pass a required academic standard to remain active in school sports—thus they have an impetus to improve their grades. And, as an explanation for the tennis players' high place, it was offered that this sport is an individual affair and not as time-consuming as many others.

Corroborating the Minneapolis findings is a Long Beach, Calif., survey showing that the failure to develop good muscular coordination restricts the development of a child's genius.

The survey, conducted by Dr. Leslie N. Nason, professor of education at the University of Southern California, covered 237 gifted children in a Long Beach high school.

In an interview Dr. Nason said: "The gifted child generally prefers associating with the teacher rather than playing with classmates in the playground. His muscular control never develops properly and as a consequence neither does his penmanship, which depends on this coordination.

"Thus there develops a block between this thinking process and what he is able to communicate in writing. He never develops organizational skills. A ceiling is placed on his future attainments."

Employee life insurance ruled out in Detroit

A ruling of the Michigan Attorney General's office may end free life insurance policies for employees of Detroit's public schools. All school employees now receive $1,000 term policies.

Attorney General Paul L. Adams has ruled that a board of education in Michigan has no authority to make pay roll deductions or to use school funds for such a purpose.

He pointed to a statute which allows boards to provide hospital and surgical benefits or health and accident coverage but makes no provision for life insurance.

Detroit officials said they will have to study the ruling before they can decide how to proceed. They indicated that they might appeal the ruling on the grounds that Detroit is the only first class district in the state. "Maybe that will make a difference," said Assistant School Superintendent H. L. Harrington.

A move is also underway in the state to have the legislature amend the present statute to include life insurance provisions. This would be done during the session which opens in January.

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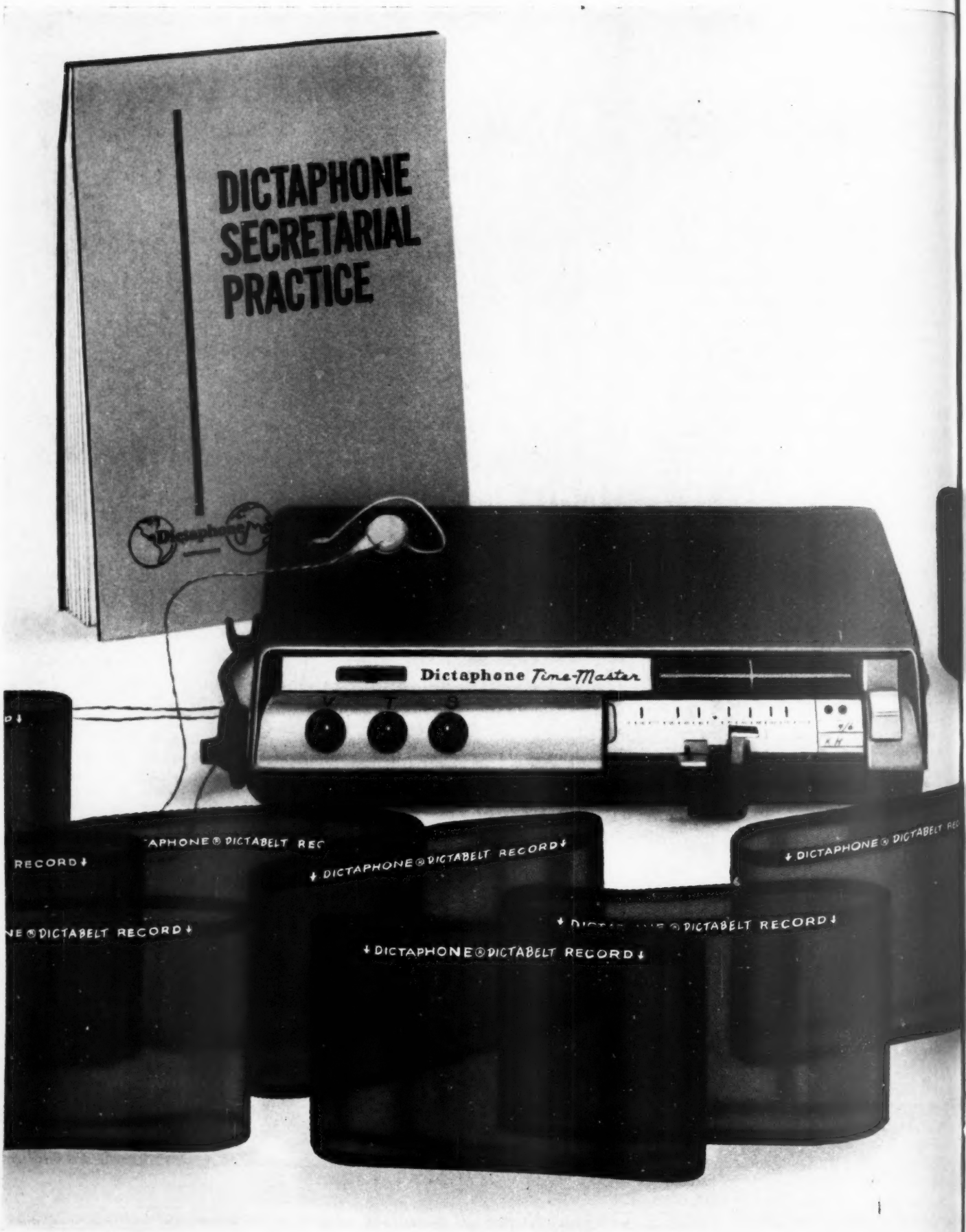

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an S/M *interview*

How to hire a teacher—and when

October is the time to start hiring for next September. In this tape-recorded interview a recruiting specialist tells how he uncovers—and hires—superior teachers in a tight market.

■ ■ ■ There's no one "right way" to go about recruiting able teachers. But there is a "better way," and it doesn't necessarily involve elaborate or costly gimmicks or flamboyant public relations.

The techniques described in this article could be used by a school district of any size. In a large district, more money—and more hands—are available for recruiting, but the district also needs more teachers. In a smaller district, with limited money and manpower resources, the number of new teachers needed annually is also smaller. In fact, the smaller district enjoys an advantage when all other things but size are equal: An intimate setting in which a good teacher knows he or she can get recognition and freedom for action.

The man SM interviewed

Charles Richter is currently superintendent of the Niskayuna, N. Y. School District in the suburbs of Schenectady. Dr. Richter spent 18 years in the Newton, Mass. school system, first as a teacher, and most recently as assistant superintendent. In the latter position, he was in charge of recruiting for the Newton schools. This interview was conducted shortly after Dr. Richter's new appointment was announced, as he was completing his work for the Newton schools.

Q ***Dr. Richter, when do you begin to think about your recruiting for next year?***

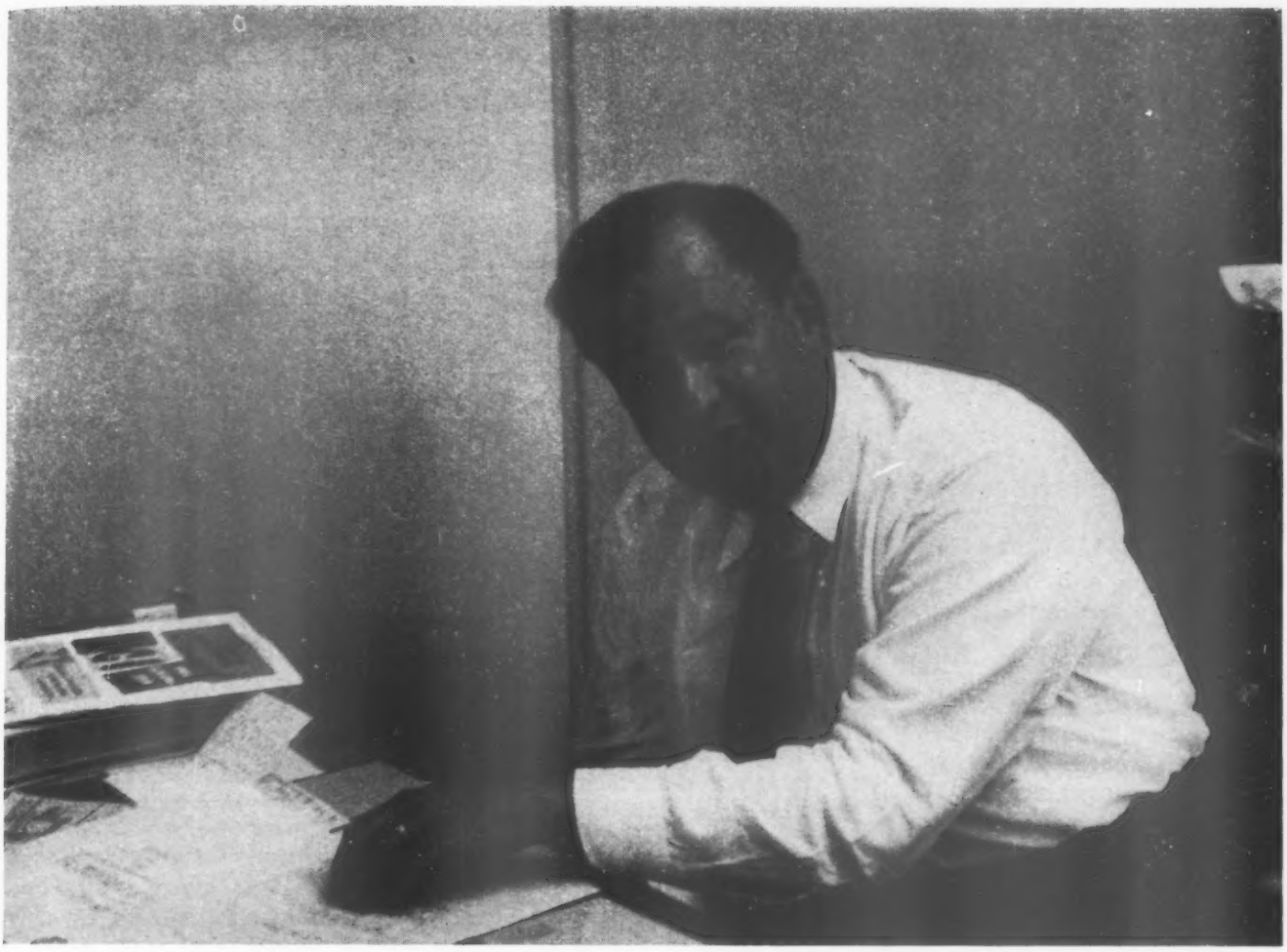
RICHTER: In the old days, we used to have a "hunting season." Today, the hunting season is year-round. For example, at Newton we hire about half of the elementary teachers for next year between September and Christmas. We don't worry about having vacancies for them to fill since it's absolutely predictable that we'll have some the following September. So, by Christmas time each year, we know we can hire at least 40 teachers in anticipation of vacancies our experience tells us will occur.

Q. *How many teachers do you hire each year for the Newton schools?*

RICHTER: Newton needed 179 new teachers for 1958. There were 734 faculty members last year.

Q. *When you're working with numbers like that, doesn't it make it a lot easier and safer to hire so far in advance than it would be in a smaller district?*

RICHTER: Not necessarily. Most school districts know pretty well what their population expansion and attrition rate is going to be from year to year. It's a rare school district that has to worry about hiring too many teachers too soon



"Today the hunting is year round. We hire about half the elementary teachers before Christmas." **RICHTER**

these days. Particularly if it is looking for quality.

Q. *If you work so far in advance, by what time of the year do you hope to complete your recruiting for the following year?*

RICHTER: Let me put it this way—we have a pretty good estimate of our needs a year in advance. At the elementary level we try to hire half by Christmas time. By March or April, we should have a surplus . . . more teachers than we have known vacancies. We don't worry about it. There's always an unexpected loss right up to the time school opens. After all, pregnancy is not a seasonal phenomenon. Nor is a change of job for a teacher's husband. We have unexpected losses all through the summer right up to the opening of school.

Q. *When do you start recruiting for high school?*

RICHTER: Recruitment for the secondary school begins in late February or March. This is a somewhat different problem.

Q. *Who does the recruiting?*

RICHTER: Actual recruiting is spread over a broad base. To recruit well, you should have everybody on your staff worrying about where you're going to find good teachers. The high school principal, for example, when he goes to a conference, should be on the lookout for people who display some talent and ability. On the elementary level, when principals go to conventions, they are there in part to spot good people.

Q. *Aren't the teachers who attend conferences pretty well established in their present jobs? Aren't they hard to get?*

RICHTER: It's always hard to move good teachers. But it isn't impossible. A difference in the salary schedules can help. At Newton, we find that some teachers like to be near Boston or near colleges where they can do further study. These things help. But, essentially, you've got to do a selling job. And you've got to have your whole staff scouting for you. The man who's hard to move is usually a good one. We're not doing our job well if we consider only those who apply or who are otherwise readily available.

Q. *Do you use teachers as well as principals for scouting?*

RICHTER: Definitely. Teachers are kept conscious of the problem. For example, I have a group of our new teachers from a given college come to my office some time in November to discuss whereabouts of other teachers. We chat about how they're doing and eventually get to the $64 question: "Now who are the girls that graduated with you

"Experience, of itself, is not a good thing . . . A candidate with five years teaching in a poor system may be nothing more than a good mechanic."

last year, or the year before last, who might be happy here?" I ask them whom they would recommend to us. If one of the teachers has a suggestion, we decide right there whether I or one of them will write to the teacher in question. We sound them out by mail. We try to get them to come to visit us. Then, we have an established technique for handling a visiting candidate.

Q *Before we get into the actual "selling" job—as you've called it—let's go back to early in the year when you begin your recruiting. What are your mechanics of recruiting?*

RICHTER: In the fall we're principally after elementary school candidates coming out of the teaching colleges. Typically, we'll send a team of five principals into a teachers' college after we've asked the college to name the upper 25% of the class that is graduating . . . the girls who have had an A or an A-minus in teaching plus a strong academic record. At this point we're after the very best of the inexperienced teachers. We don't want to find ourselves in a position, later in the year, where we are unable to fill out our positions with experienced teachers. So we move early. If we see 25 girls, we may ask 12 to come and visit us, to look us over.

Q. *You ask them to visit during their next vacation?*

RICHTER: We prefer to have them visit on a normal school day while the school is in operation. Let's say they come from the University of Maine. We'll try to get two of our teachers who were in last year's class at Maine to be their guides during the visit. We tell them to take the girls to lunch, to show them our oldest school and our newest school, and to answer their questions. These candidates will ask questions of these girls that they would be reluctant to ask us. Then, at 2 p.m. I see them as a group in the administration building. At this time, I bring in a principal—usually a principal who was not one of the screeners at their college. I also bring in a supervisor of music, or art, or physical education. These people will not share in the selection process necessarily, but they can answer questions about the kind of help a new teacher might receive if she decided to come here to teach. We want candidates to know that they get real help, that supervision is a service, not inspection.

Q. *You mentioned earlier that these candidates were selected for high marks in teaching. Do your principals actually observe them practice teaching when they make a visit?*

RICHTER: If possible, they do. Actually, however, our most valid source of information is to have someone in the college—a professor with whom we have built a relationship—give us an opinion based on observation over a period of time. That is much more valid information than to just walk in on a student or to have the college rig a class for us to observe. I'm convinced that a girl's marks in practice teaching are the best yardstick we can use provided, of course, that she is a good all-round student.

Q. *What about her grades in other subjects?*

RICHTER: They're less valid for predicting success. The correlation between success in teaching and high marks is barely positive. That doesn't mean that you should pick stupid teachers. It means that high marks, in themselves, do not necessarily provide a good teacher. The same is true of references. It depends upon who writes the reference. If you know the person and can talk to him directly, then a reference becomes quite important.

Q. *How valid is an interview as a criterion?*

RICHTER: It means little in predicting success. About all you can tell in an interview is whether a prospect is personable. If you ask pointed questions about teaching, you get the usual "Sunday school" answers. Taken together with other information, the interview can be helpful.

Q *What happens at this afternoon interview when a group of candidates visits your district?*

RICHTER: We sit around a table and have tea, or Cokes, and we just talk. First of all, we want to give these people a chance to ask the questions they couldn't resolve in the morning. We ask questions, too. One of the questions might be, "What did you see today that you would like to fix?" I make it clear that they won't get an "A" for a Sunday school answer. We ask them what they liked . . . what they liked very much.

Q. *Is this done in front of the other 11 candidates?*

RICHTER: Yes. That tells you something, too. You find out who climbs over whom, who is so aggressive that she may be obnoxious to an older teacher who has been teaching for 20 years.

Q. *Are all of these interviews before Christmas?*

RICHTER: Some of them are and

some of them extend into January or February.

Q. *If you like some of the girls you see, do you offer them a job right away?*

RICHTER: A contract is prepared after the next school board meeting but the job is offered as soon after the interview as the facts are in. In that way, by January 1 we have hired about 40 teachers. Remember, these girls have been screened by the principals, we have letters of recommendation, and we know something about their marks in practice teaching.

Q. *Do you have a quota of any kind limiting the number of teachers you hire fresh out of college?*

RICHTER: No. But it turns out to be about 50-50, although the last year and this coming year we will have more experienced than inexperienced. Experience of itself is not necessarily good. We could still staff our schools if we were willing to take just experience. But remember, you are not hiring just for this year, you are hiring teachers who will be here next year, 10 years from now, even 15 years. For example, let's say you have a candidate with five years' experience in a poor school system. She couldn't make the big league when she graduated. She wasn't a promising senior. She had poor marks. But now she is established—she knows the routine, she can keep order. She might, because of this, appeal to some principals. However, she may be nothing more than a classroom mechanic, the most unimaginative person you ever saw. You've got to be very careful in evaluating experience.

Q. *Wouldn't you recruit a teacher from what you call a poor school system?*

RICHTER: Occasionally, a very, very able girl will go to a poor district. Maybe she has a widowed mother and has to live close to home. We actually know of a number of these situations. We keep our eye on that teacher. One day, one of our teachers will come in and say, "You know that girl you wanted very much? Well, her mother died, I saw it in the paper." Then we go after that girl. In fact, we've probably written to her every year since we first saw her, inquiring of her status.

Q. *Back to these inexperienced teachers. Do you send them a contract to sign?*

RICHTER: When we hire a girl we write three letters. One goes to her and we write to two of her references. We say something like this, "Dear Dr. Jones. In large measure, because of your recommendation of Mary Smith, we have invited her to join us, and would like to take this time to thank you for your help." Generally he writes back and says, "Never in my life, and I have been writing references for 30 years, has anyone else ever thanked me!" We don't stop there. The following spring, when we reappoint her, we write another letter to this man and we say that she has done a fine job for us this year, thank him again, and tell him how correct he was in his judgment. At the same time, we say, "If you have any more like

HERE'S WHAT WE LOOK FOR IN A CANDIDATE

Professional Education

Psychology, Methods, Measurement, etc.

Specialization

Secondary Schools: Major subject matter area

Elementary: one of following, in addition to grade level:

Music, Art, Outdoor Ed., Reading, Arithmetic, etc.

General Education

Humanities—Survey of Science

Raw intelligence —studentship	Good mental & physical health	Personality	Missionary zeal
Alertness	*Vigor*	*Leadership*	*Desire for service*
IQ Score	*Buoyancy*	*Sensitivity*	*Liking for children*
Inventiveness	*Maturity*	*Responsiveness*	*Appreciation of functions of Education*
Versatility	*Confidence*	*Voice*	
	Optimism	*Poise*	
	Permissiveness	*Dress*	
		Speech	

The Newton schools use this form to obtain evaluations of experienced teachers

I shall appreciate your estimate of
who has applied for a position in the Newton Schools as a teacher of
and who has given your name as a reference. This blank does not necessarily mean that there is an immediate vacancy for which the candidate is being considered. Your reply will be honored as entirely confidential.

We are interested in securing good teachers for the Newton Public Schools. We are, therefore, on the lookout for persons with more than ordinary intelligence, who are endowed with mental and physical vitality and poise, and whose personal and social culture is distinctly superior. We are looking for teachers who believe in the great importance of public education in the United States and who have followed up this belief by investment in academic and professional education conmensurate with the highest quality of teaching. We are interested in securing teachers who enjoy working with children, not in a sentimental way, but in a friendly, understanding, and scientific spirit.

In your opinion does this candidate meet these specifications? If yes, how?

If no, why?

In what school subjects or grade level is the candidate best qualified?

How long and in what capacity have you known the candidate?

Would you re-employ this person?

To aid us further in the evaluation will you please rate this candidate, as compared with other teachers who have had similar length of experience, and with whom you have worked, in the following characteristics by checking the appropriate column.

CHARACTERISTICS	Highest Tenth	Upper Third[1]	Upper Half[2]	Lower Half
1. Emotional Stability				
2. Social Poise				
3. Vitality				
4. Constructive Imagination				
5. Critical Judgment				
6. Care of Necessary Routine				
7. Skill as a Teacher				
8. Professional Ethics				
9. Community Service				
10. Understanding of Others				
11. Promise of Growth				
General Rating				

[1]) *A check in this column would mean that you rate this candidate in the upper third but below the highest tenth.*
[2]) *In this column he is rated in the upper half but below the upper third.*

What is the candidate's strongest asset?

Chief weakness?

Please add any further information concerning the candidate which would be of value to us

Signed

Position

her in mind, let us know." You know what happens—the next time a girl he knows from his area is going to be in Boston, he'll say "look up this man Richter." This produces some superb prospects.

Q. *Do you get most of your inexperienced teachers from colleges in this area?*

RICHTER: We send recruiting teams into the nearby colleges. But we hire teachers from all over. These letters we write are one of the sources. And we have several people, in various parts of the country, who will interview for us at colleges in their locality. For example, there's a principal out in the San Diego area who was once an assistant principal here. He interviewed two teachers out there. We hired them. This is particularly valuable with experienced teachers. Last year we hired 179 teachers and they came from 88 different colleges and universities in something like 26 different states.

Q What methods do you use for hiring teachers with certain specialties you may need—such as French, or physics, or music? Do you ever go to professional employment agencies?

RICHTER: I don't use them very often. I'm doubtful about certain commercial agencies although there are a number of excellent ones that are quite selective in their recommendations.

Q. *How do you recruit experienced people?*

RICHTER: Well, we try to foresee what our needs will be for certain specialties in all levels—elementary, junior high and high school. We write to the colleges, or contact our friends there, and ask them to send us papers on available personnel. Many teachers tell their colleges they want to make a change. And a lot of these colleges have graduate schools where experienced teachers come back for full-time graduate work. We have our principals go through these papers when they come in. Then we set up a schedule of appointments—Saturday mornings, holidays, vacation

continued on page 80

EXPLORATIONS IN EDUCATION

What are others doing to improve their local schools? Here is a further report of a joint research program that will make available to school boards and superintendents information on new approaches to utilization of facilities.

■ ■ ■ The following case histories are reported as a part of a joint research project with the education committee of the Massachusetts Association of School Committees.

In this and future issues, we will report as many good examples of educational research being conducted at the local school district level as we can obtain. The continuing success of the program depends on the willingness of readers of this magazine to *share* their own experiences with others.

With this in mind, we suggest that you ask yourself, right now, "What are we doing in our district that can be of help or reassurance to other districts struggling to improve their schools?" Then glance through these few criteria of what we are seeking:

1. Any program that makes better use of teacher abilities.
2. Any program that breaks away from traditional concepts of class size and space utilization.
3. Any program that makes better use of the very limited number of hours in the school day.

Ground rules: Your report need not be a long one. You can use the form at the end of this article or write us a letter. Your experiment need not be a proven success. This is *Research*—and the very word "research" presupposes the right to fail.

Please address your material to "Explorations in Education," in care of this magazine.

EXPANDING COURSE OFFERINGS IN SMALL HIGH SCHOOLS

ALMOST HALF OF THE NATION'S HIGH SCHOOLS have no more than 150 pupils. Colorado has more than its share of such schools—165 of the 265 high schools in operation last year.

Their problems are not crowded classes and extended sessions. Small schools instead are concerned with lack of variety in the curriculum, their inability to provide for individual differences, and the wastes that accompany smallness.

Many of their students are unable to get a foreign language, advanced science, and math courses needed for college or for the jobs they hope to find.

A three year project in Colorado, financed by a Ford Foundation grant of $104,500, is seeking ways to turn small school weaknesses into strengths. Project backers are convinced that adding teachers and consolidating schools are not the only solutions to the problems of smallness.

The study started last year in five Colorado high schools. Eight are being added this fall and perhaps as many as 12 more in the fall of 1959.

In all of the schools, ways will be sought to individualize instruction and to add to the curriculum so that each student will get the training he needs.

The object is to provide a quality program with whatever resources are available. To help accomplish this, an old-fashioned technique used for decades in one-room schools—multiple class teaching—was relied on heavily in the first year of the study, and is being used in still more schools this year.

Correspondence courses are used frequently, more reading is assigned, films and recordings are relied on for amplifying teacher's lectures and community residents are called upon to supply information in their fields.

continued on next page

EXPLORATIONS IN EDUCATION *continued*

It works this way:

In a high school with 100 pupils, only two may want trigonometry; six may sign up for geometry and 12 for elementary algebra.

The three are combined in a "multiple class" with about 15 minutes being devoted at the beginning of the period to a lecture on "common areas of emphasis" —information for all three groups.

Then the groups separate, working in different rooms or different areas of the same room. The teacher moves from one to the other, keeping each busy, answering questions, making suggestions. When feasible, a community expert on the subject being studied may be called in to talk to one of the groups.

In some situations, one group may watch a film or listen to a recording while the teacher works with another. The teacher, in fact, becomes a coordinator, consultant and resource person, even more than a lecturer.

Last year, for example, art, trigonometry and mechanical drawing were taught simultaneously at Limon, Colo.

Another Limon teacher taught Latin and creative writing together.

At San Luis, the combination was geometry and trigonometry and at Kremmling it was bookkeeping and general business in one class and shop and diesel mechanics in another.

A second technique tried last year has been labeled simply as "small group technique."

After a short lecture, the class is divided into three or four groups, or more. In a freshman English class one group might work on reading improvement, perhaps with the aid of a mechanical device like a tachistoscope, while another works on the basic fundamentals of writing. A third could study in the library, a fourth practice public speaking and still another participate in creative writing.

Multiple class teaching and the small group technique are only two of several methods to be tried which may help provide a broader and better education for pupils in small high schools.

Reported by Betty Jean Lee, education editor, The Denver Post.

ACCELERATION POSSIBILITIES AT FOURTH GRADE LEVEL

A GROUP OF 30 MINEOLA, N. Y., students took the first step in an educational experiment last summer when they attended regular classes during the month of July. The students are participating in a program designed to determine to what degree children of high potential can be successfully accelerated. They will attempt to complete four grades in three years.

The students chosen had all completed the fourth grade last June. They were selected to participate in the experiment on the basis of physical development, social and emotional maturity, school achievement as determined by standardized tests and teacher judgments, and intellectual ability.

Parents of the children selected were asked to give their consent to the experiment and also to sign a pledge to keep the children in the program unless unusual situations, such as poor health or change of residence, occurred.

Under the acceleration program, the class will remain together until July 31, 1961. The students will attend classes for three years and four summer months (*July of each year*). At the end of that time they are expected to have completed the eighth grade. Their present classmates will at the same time be completing seventh grade work.

Control groups are being set up in the fifth and sixth grades this year to measure the experimental group's development. Dr. Gerald T. Kowitz of the New York State Department of Education is acting as a consultant in the supervision of the program and will aid in the development of various tests to measure aspects of the program.

Students will be measured not only on academic achievement but on social relationships, cultural activities, use of leisure time and other general goals of school training.

Reported by Raymond H. Ostrander, superintendent, Mineola, N. Y.

UNGRADED PRIMARY LEADS TO INCREASED TEACHER FLEXIBILITY

FIVE YEARS AGO BURLINGTON, VT., had an acute teacher and classroom shortage in one particular elementary school. Forced by this crisis to explore experimental methods of teaching, the Burlington system turned to ungraded primaries.

Today the emergency is over but the system continues in the Adams school, where it was started, and in the Ira Allen school where it is in its second year. School Superintendent William T. Logan, Jr., has indicated that if the program proves as successful in the Allen school as it has been at Adams, it will spread to the entire Burlington system and a similar program will be introduced at the fourth through sixth grade levels.

In Burlington's ungraded primary system, students advance to levels rather than grades. Levels are determined by reading and other mental abilities, physical maturity and emotional development.

Students are actually assigned to rooms, rather than levels. Thus, students who are all on the second level might be assigned to Mrs. Jones' room. Others might be in Mrs. Smith's room. Still others, those who perhaps were not up to second level work, would simply be assigned to the room in which Mrs. Green taught.

From the point of view of the students and parents,

the advantages are obvious. Most students complete the primary work in three years. But in one case the child will advance at the rate of one level per year. Another child might have difficulty getting started, then suddenly spurt in the final two years.

Under a graded system, that child might have to be left back in the first grade. In the ungraded system, he can be placed somewhere on the first level with opportunity to advance at his own rate up to the third level. If, returning from summer vacation, he has matured greatly, he has the opportunity to quickly catch up with his correct level without the stigma of having been "left back."

Each classroom has three levels of children. Thus, a teacher might have fast, average and slow third-level students, or she might be teaching slow third-level students and fast and average students at the second level.

This has resulted in increased flexibility for the teaching staff. For example, with 150 students evenly grouped between first, second and third grades, six teachers would each be able to handle 25 students in a particular grade.

But, as so often happens, if the 150 students include 35 in the first grade, 80 in the second grade and 35 in the third grade, four teachers would have too few pupils and two would be teaching in overcrowded rooms.

In the Burlington system, some of the second level students would be taught in the same classroom as first level students (the faster of the first grade with the slower of the second) and some would be taught with the third level.

Although the Burlington system would also make it possible to accelerate gifted children, this is not one of its objects.

Logan points out that under this system there is room for third level students in special cases, to study reading with the fourth grade but to remain in their regular classes for other subjects.

Reported by William T. Logan, Jr., superintendent, Burlington, Vt.

CLASS-SIZE CONCEPTS CHALLENGED IN EXPERIMENT

A YEAR OF EXPERIMENTING with class sizes ranging from 10 to 84 has led Jefferson County, Colo. school officials to three conclusions:

1. If other factors are equal, the size of the class has little bearing on pupil learning. (*turn page*)

Here's what we're doing in our district

SUBMITTED BY _____ TITLE _____

SCHOOL DISTRICT _____

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RETURN TO: *Explorations in Education • School Management • 22 W. Putnam Ave • Greenwich, Conn.*

EXPLORATIONS IN EDUCATION *continued*

2. Grouping of high-capacity pupils in classes of 10 is not academically or economically feasible.

3. Team teaching is an approach to meeting the existing personnel shortage.

The Jefferson County experiment, made possible by a grant from the Ford Foundation, is being conducted under the sponsorship of the Commission on Experimental Study of Utilization of the Staff in the Secondary School. The experiment is designed to challenge the traditional concept of 25 or 30 as the ideal class size under any and all circumstances. The possibility that 70, 100 or more might be an ideal number for classes in English, for instance, or that 10 or less might be perfect for a science class, is being explored.

In the first year of a five-year experiment, the Jefferson school district, with about 2,500 high school pupils, put more than 1,000 of them—members of the 10th and 11th grades—in classes of 10, 20, 35 and up to 84.

They studied geometry, biology, history and English.

Findings based on the Iowa Tests of Educational Development showed that:

A group of 10 superior students with one teacher accomplished no more than a similar group in a class of 20, 35, 60 or 70.

An unselected group of 20 students with one teacher did no better than a comparable group of 35 with one teacher.

A class of 70 taught by two teachers working as a team showed no better results than did 70 students in two separate classes of 35 each.

A class of 70 with two teachers did no better than pupils in a class of 20 with one teacher.

A class of 70 with two certificated teachers produced no better results than a class of 70 with certificated teacher and a degree-holding non-certificated person, or a team consisting of one certificated teacher and a clerk.

Classes of 60 or 70 produced no better results in certain subjects or phases of a subject than in others.

Classes of 20 produced no better results in certain subjects or phases of a subject than in others.

Classes of 35 produced no better results in certain subjects or phases of a subject than in others.

The study led to three positive conclusions:

- The morale of teachers working as a team with a larger group of students is higher than the morale of teachers working individually with average size groups.
- Two teachers working as a team can identify their areas of proficiency which would be of greatest benefit to the educational program.
- The class-size experiment will "produce or refine instructional techniques to the benefit of the total instructional program.

The findings, significant and surprising as they are to many school officials, are only the beginning as far as the Jefferson program is concerned.

This fall teams of two and three teachers are going to work in about 20 classrooms with almost 1,700 pupils. And in an even bolder project a high school schedule has been revamped to eliminate the traditional six-period day with five meetings of each class each week.

If the new schedule is a success, Jefferson County students may become pioneers in shedding the harness that has held youngsters tightly in rein until they have completed specified hours in specified subjects.

At Golden High School, one of eight in the district, the traditional class schedule will be junked this fall for about 400 pupils—all the sophomores and about 80% of the junior class.

Instead, lectures will be given simultaneously in the auditorium or gym to all students taking certain classes —biology, homemaking, industrial arts, languages, etc.

From 100 to 200 students will attend each of the weekly lectures, but classes will be broken into groups of 25 or 30 for a second lecture-discussion period and a two-hour laboratory or discussion session.

The fourth and final meeting each week would be devoted to review and evaluation in groups of 50 to 75 pupils.

The revamped schedule at Golden will save teacher time by enabling the instructor to give one lecture to all students in a course instead of repeating it six times a day.

It also will make it easy to group students for laboratory and discussion periods, and will give pupils longer blocks of time in such sessions, so they can finish projects.

While Golden High is experimenting with its new schedule, 1,700 pupils in the seven other high schools will attend classes taught by teams of teachers.

The teams, aided by a clerk, will meet with large groups of students—from 50 to 110. After the teacher in charge, labeled as a "professional" by school officials, explains a new unit or project to the entire group, the class will be divided according to ability, with a teacher assigned to each group.

The clerk handles the paper work, recording and other clerical chores and assists students when possible.

For example, one high school (Wheat Ridge) will have three 10th grade English classes with about 100 pupils each. Each will have three teachers. A clerk will assist in all three classes. But the classes will meet frequently in small groups so that those needing special help can get it more easily.

At another school three classes of plane geometry will have 100 students each, and in another 240 typing students will be divided in three classes of 80.

Other classes scheduled are one for 110 pupils in English, others of 110, 85 and 75 in world history; 85, 80 and 70 in American history; 50 in social studies and 95 in another English class.

School officials estimate that their team teaching plan will save from a third to two-fifths of a teacher's salary for each 100 pupils, over a typical plan with 25 pupils in each one-teacher classroom.

Reported by Jefferson County public schools, Lakewood, Colo.

SIX questions of school board policy

HOW WOULD YOU ANSWER THEM

1. **Should a school board try to obtain a unanimous vote on each motion it passes?**

2. **How much time should a school board member be expected to spend on school affairs?**

3. **Should a school board have "standing committees" in various areas such as curriculum, building and grounds, etc?**

4. **What is the role of the superintendent at the board meetings? Is he a paticipant with equal status, or should he keep quiet and speak only when called upon?**

5. **Should all school board meetings be open, or are executive sessions ever warranted?**

6. **Should a school board member be required to spend a certain amount of time in the schools while they are in session?**

Here are six hotly-debated topics on which no one has developed pat answers.

Editor's Note: What do board members argue about when they meet at a state convention? This article covers six items—drawn from a series of questions recently debated at a meeting of the Colorado School Boards Association in Boulder, Colo. SM asked W. A. Shannon, executive director of the National School Boards Association, to give us his opinions.

If you disagree with him we hope you will tell us how and why.

"There is no reason a board should be in session more than two or three hours unless it has a special situation to handle."

W. A. Shannon

1 *Should a school board try to obtain a unanimous vote on each motion it passes?*

SHANNON: Not necessarily. After a board has given full consideration to an issue, if one member feels he does not agree with the others, I think he should vote negatively. Naturally, if an important public issue is involved, this will weaken the proposal so far as the community is concerned. In a case like that, a board should work . . . and work . . . and work to get unanimity. Then, if all members are not in agreement, I think it would be a waste of time to continue.

Q. Would you say that you could imagine a situation in which, on a five-man board, four members should compromise their stand in order to get a unanimous vote?

SHANNON: No. That would not be representative government.

Q. Do you believe a single dissenting member has the right to issue a minority report, and make it public?

SHANNON: Yes, if he thinks it's important enough to do so. I think it would be unfortunate ordinarily. A board member owes loyalty to the other board members, particularly if they have made an honest effort to convince him. But, if he really feels strongly, I think he has a greater loyalty to the people in his community.

2 *How much time should a school board member be expected to spend on school affairs?*

SHANNON: Let's take an average community where the board of education has two meetings a month. One is for business—and this meeting should always be open to the public—and the second for discussion, also open to the community, where school philosophy, curriculum, and other areas of school activity are discussed and considered. That will take about four to six hours a month. He should spend another three or four hours a week on reading, studying the latest publications, and following research reports, bulletins and materials found in the superintendent's office. In other words, about five hours a week should permit a man to do a good job as a school board member.

Q. Is two or three hours enough time for the average board meeting?

SHANNON: There is no reason why a board should be in session more than two or three hours unless it has a special situation to handle. Of course, a lot would depend upon the procedures that the board has developed. But, if the superintendent has made plans for a meeting, if he has provided members with copies of the minutes of the preceding meeting, if they have a published agenda, if they have received in advance copies of the bills to be approved and if discussion is confined to the prepared agenda, there is no reason for it to drag out. That is one reason for having two meetings a month—one for business and one for discussion. I'd like to repeat what I said before: *both* of these meetings should be open to the public.

3 *Should a school board have "standing committees" in various areas such as curriculum, building and grounds, etc.?*

SHANNON: The practice of having standing committees usually is developed from a situation where the board does not have full and complete confidence in its superintendent and professional staff. I would prefer to see the board make its decisions as a committee of the whole. This does not mean that individual board members can't do study or research in particular areas that interest them. As a general practice, however, it's better to have a citizens' committee—or a member of the administrative staff who is a specialist—do the research and dig out the facts which the board can then consider.

4 *What is the role of the superintendent at the board meeting? Is he a participant with equal status, or should he keep quiet and speak only when called upon?*

SHANNON: It is a much healthier situation when the superintendent feels as though he is part of the board. He should not dominate the meeting, nor should the board look to him for the answers to all questions. Ideally, the superintendent sits with the board to provide the facts—or to get the facts when he does not have them.

Q. Should the superintendent have other members of his staff attend meetings to provide on-the-spot information?

SHANNON: Yes, if the procedural policies of the board permit. Sometimes a board prefers to operate with only the superintendent present because the members do not want to be outnumbered by the professional staff. But, these days we find more boards of education prefer to have the business manager, at least, and sometimes other heads of departments in attendance. In fact, no member of the administration should be reluctant to attend board meetings. They should feel they can come in on their own accord simply because they would like to know what the board is doing.

Q. Is there any situation in which the superintendent should be excluded from the meeting?

SHANNON: There might be two circumstances: one, the consideration of the renewal of his contract; and, two, when the end of the year comes and the board is giving consideration to an increase in his salary.

5 *Should all school board meetings be open, or are "executive sessions" ever warranted?*

SHANNON: I feel very strongly about this. There are only two situations in which the board should meet in private: when personalities are being discussed, and when land sites are being considered. People in a community provide the tax funds from which the schools are operated. They provide the children to be educated. Since they provide both the money and the children, they have every right to know how the board and the superintendent are operating the schools. Some board members feel that it is more difficult to do business in the bright light of a public meeting. I don't buy that. It's true that an individual might not make certain statements in public that he would make in private, but most of these statements could just as well be omitted to begin with. These statements are usually based on hearsay, rather than on facts.

Q. Is there any national trend toward open board meetings?

SHANNON: Yes, but I can't say that all of it is due to the feeling of the board members themselves. More and more state legislatures are requiring that all board meetings be held open. These laws usually permit executive sessions under special conditions. Even so, some boards evade the law by failing to give any publicity to their meetings. In other words, they do nothing to encourage the public to attend.

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Tailor-make your SCHOOL BOND CAMPAIGN

The referendum campaign that was a smash hit in Minneapolis may be a flop in Muskegon. Every community has its special problems of size, area, population. Here's what others have done to sell themselves to their voters.

By ASHER B. ETKES
Asher B. Etkes Asscoiates, Public Relations

■ ■ ■ The outlook for school bond passage is brightening. Despite the recession and despite lessening public concern about recent revelations of Russia's scholastic progress, referendums for new construction are being approved at an increasing rate.

An explanation of this paradox may well lie in the growing sophistication and excellence of the school bond campaigning technique. Bond drives have matured. They have borrowed ideas from the public relations profession. These methods have helped to steer communities of every size and disposition to the successful conclusion of their school construction goals.

The success of such dissimilar municipalities as Minneapolis; Glens Falls, N. Y.; Hobbs, N. M.; and Ingleside, Ill.; described in this article, can teach much that is useful. Each community tackled its unique problems from a "selling" standpoint . . . the public was literally "sold" the concept of school construction.

But just as a sales approach must be psychologically tailored to the customer, so were these campaigns distinctive and different. Each was well-organized and persuasive, but physical set-ups differed from case to case. Each was designed to answer particular conditions existing within the community.

Preplanning

A notable example of the importance of preplanning was set during the bond campaign staged in Minneapolis. The city had undertaken a sizeable task, convincing its half-million-plus residents to maintain a $7.5 million increase over charter limitations for an additional two-year period.

A campaign to "sell the people by telling the people" was sketched-out by a citizens' committee months in advance of voting day. This two-pronged program was proposed:

1. Comprehensive, door-to-door coverage, with complete, tightly-knit, well-organized, ward-precinct-block canvassing. Well-informed workers were to be pledged, not just to distribute literature, but to ring door bells and to talk to voters.

2. Sparkling and "different" promotional and publicity ideas for campaign novelty, were to be used. These ideas were to be designed to help the campaign worker as well as to stimulate him to intensify his own efforts.

A program of these dimensions required, above all, a competent administrative team, a roster of campaign projects, and a precise timetable for the activation of these projects. The first concrete move was made by the citizens' commit-

tee. It designated a special planning group and authorized it to analyze voting trends, to examine techniques for appealing to voters, to survey the problems of financing the campaign, and to evaluate the needs of the campaign for personnel and equipment.

The planning group also appointed a campaign committee. The latter was handed complete jurisdiction for organizing and coordinating the bond drive itself. With the mayor elected chairman, and with representatives of business, labor, the PTA and the citizens' committee serving under him, the campaign committee assumed the operating title of the Vote Yes School Committee.

Several subcommittees were formed to secure information and to submit recommendations on specific facets of the drive to their parent group. Eight in number, these subcommittees considered strategy, publicity, promotion, organization support, special gifts, general solicitation, speaker's bureau assignments and ward-precinct-block organization. These subcommittees, with one or more school representatives and a school board member in attendance, met almost daily through the summer months to discuss their findings and diagram a provisional program for study by their parent committee.

It was the strategy committee, charged with "suggesting methods of procedure and analyzing and evaluating the regular activities of the campaign," that was supremely important to the preplanning procedure. In effect it was a steering committee as well as a consulting body and a formal liaison between all committees. Its actual function is explained to an extent by the recommendations it presented:

- To conduct an intensive door-to-door campaign.
- To emphasize in all phases of the campaign that the referendum does not increase taxes but eliminates deficit financing for the immediate future.
- To simplify literature and publicity so that it appeals to,

FOR EACH ITS OWN

Comprehensive brochure made thorough analysis of school plant needs, pointed to town's absolute need for new senior high school.

Four-page handout did basic educational job. Issues at stake were developed and "green ballot" and "vote yes" themes reiterated.

Folders carried direct messages to public on need for construction of new facilities in a growing school district.

Campaign song to the tune of "Battle Hymn of the Republic" rallied public support. Records were played on radio, school public address systems, sound trucks.

and is readily understood by, all elements of the community.

- To secure active labor support.
- To avoid debate with the opposition; to avoid debate on other school issues.
- To prepare a single piece of literature for all purposes—four pages, well-illustrated—on newsprint, with a cartoon approach, if possible.
- To dramatize promotion through a green ballot color motif, singing high school groups, sound trucks, etc., allocating up to one-tenth of the budget for these purposes.

All committees were equally active in sending information and recommendations to the parent body for eventual integration into an all-inclusive and unified campaign. A tremendous conscription drive for a ward-precinct-block task force was mapped out, house-call assignments were made, and a calendar for bell-ringing and personal contact was prepared. The promotion committee then set out to transform the suggestions of the strategy committee to realities.

A public relations consultant was engaged on a professional basis by the publicity committee to supervise an all-out effort to blanket local news media with pro-school referendum material. The committee included two members charged specifically with radio and TV responsibility, one with display, two with editorial contact and one with the preparation of literature.

Although somewhat curtailed because the main drive occurred during the summer months when fewer organizations held meetings, the speaker's bureau nevertheless had 75 volunteer speakers contact all major community groups, organizations such as the Rotary, Chamber of Commerce, Jaycees, and numerous luncheon clubs.

It was apparent even before the campaign starting gun was fired, that Minneapolis had—by dint of an effective preparatory job—set up the machinery for a truly productive drive. In almost an anticlimax, the proposal carried by a 70% vote.

KNOWING YOUR AUDIENCE—both the support and the opposition—will provide guideposts for a workable program.

Don't forget to solicit help from the following:

Citizens	*Civic-minded citizens with or without children, can help. Members of parent-teacher groups are particularly available for active campaign work.*
Municipal Officials	*Public servants who can be persuaded to declare for the school bond issue can add prestige to your campaign.*
Teachers, School Employees	*These are the Minute Men of your drive, the people-on-the-spot to whom you can delegate the actual work.*
Miscellaneous Beneficiaries	*Enrollees in adult education courses and participants in other school-sponsored functions show a healthy loyalty to school causes which can be converted into active assistance.*
Thought Leaders	*Cultural and spiritual figures as well as celebrities in the community can marshall wide-ranging support for the school proposal, if solicited.*
Special Groups	*Social, fraternal, action and philanthropic organizations can be springboards for support.*
Students	*As eloquent spokesmen, for better schooling, school children cannot be beat.*

Watch for opposition from these groups:

Property Owners	*Any tax-boosting motion will invariably receive the ire of those who must cover the cost of the proposed project. Merchants' associations and real estate operators may be most vociferous in this regard.*
Childless Families	*Hostility may come from individuals who do not feel they benefit directly from improved or enlarged school facilities.*
Detractors	*Individuals or groups which may disapprove of school board policies for any number of reasons may seek to embarrass it by mobilizing opinion against its bond proposal.*
Special Cases	*Families whose children attend parochial or other private institutions may also balk at a levy which yields them no direct benefit.*

Carrying out a campaign

By a landslide vote of 2,587 to 144, Glens Falls, N. Y. approved a bond issue for erecting a modern senior high school building. With clockwork precision, the community unleashed a six-week campaign which utterly overwhelmed organized opposition. After thorough preplanning, in the manner of Minneapolis, Glens Falls capitalized on all methods available to it in order to accomplish these goals:

1. To awaken the town to the need for more schools.

2. To combat the misstatements of the opposition in the newspapers, at public meetings and at the home level.

3. To register as many voters as possible.

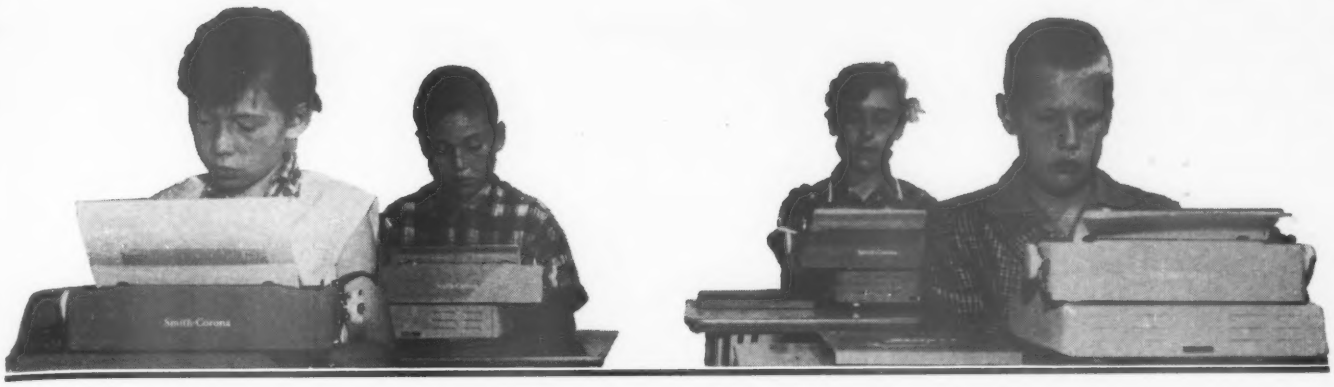
4. To get out the vote on referendum day.

The means by which these objectives were gained were manifold, but essentially the campaign pivoted on the following activities:

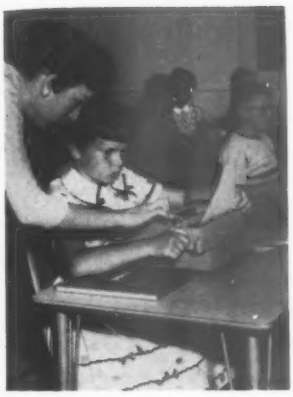
Brochure—An informative publication was prepared to answer these questions: Why are additional funds needed for school improvement? What will the costs be? What is the proposal and recommendation of the school board? Distribution through the mails and by hand brought the brochure to every voter.

Newspaper publicity—Approximately two stories per week, during

continued on page 78



Teaching third grade with a typewriter



Eight and nine-year-olds can learn to play a piano. Why not teach them the same techniques on a typewriter? Here's the story of a teacher who did — and the results he obtained.

■ ■ ■ As any doting parent will gladly tell you, Johnny has no trouble playing the piano and he's only eight years old. As a matter of fact, judging from his facility, he's a budding Paderewski, or Van Cliburn.

Well, said a college professor, if Johnny can do so well on a piano, why can't he do equally well "playing" a typewriter?

Dr. John L. Rowe, chairman of the business education department at the University of North Dakota, the professor in the case, had been pondering this point for several years. Basically, he said, children are slowed down in the third and fourth grade because their writing speed—an accepted average of 10 words per minute—is not fast enough to keep up with what their minds can absorb.

Rowe felt that eight and nine-year-old children could type 30 words a minute, thereby considerably increasing their ability to learn.

There was one catch in this idea. No typewriter was available that really suited the needs of these children. Dr. Rowe felt that any manual typewriter would have to be eliminated because the manual and muscular dexterity needed would put the skill beyond average children. An electric standard he ruled out for two reasons. First, the keyboard is large and second, the electrically-operated carriage return would be likely to frighten beginning typists.

The machine that best fit Rowe's specifications—an electric portable —was not manufactured until this year.

When an electric portable with manual carriage return became available, Rowe approached the manufacturer, Smith-Corona, with his ideas on typewriter teaching and asked the company to support an experimental class this past summer. Smith-Corona responded by supplying the necessary machines and also a grant to the university to support the research.

Armed with funds and typewriters, Rowe next approached parents of third and fourth grade students for volunteers to take an eight-week summer course, one hour each day, on an experimental basis. The response was overwhelming and Rowe was deluged with requests from parents that their children be allowed to participate.

Eventually 28 children, evenly divided between boys and girls and third and fourth graders, were selected to take the course. At the same time a control group of 28 was chosen to work on spelling, punctuation and composition without the aid of typewriters.

Before final selections were made the students were tested in reading, spelling, capitalization, punctuation, and word usage. Every attempt was made to select typical,

rather than above-average students.

The students spent a total of 34 working hours at their typewriters during the eight-week course. Each day they spent an hour in school, taking lessons for 25 minutes, then adjourning for a 10 minute milk break before resuming their places at the typewriters for another 25 minutes.

At the end of the first day more than half the class could type a simple sentence without an error. Progress throughout the experiment was as good as, or better than, that usually found in a high school class. At the end of the eight weeks, the average typing speed for the class was 30 words per minute. Some students managed a consistent 60 words in special speed tests. In both cases high degrees of accuracy were achieved.

The typing speed achieved, which will allow an average student to turn out three times as much written work as was previously possible, intrigued Dr. Rowe, but it was only one facet of the experiment.

More important in the overall picture was the fact that all of the children in the course improved their reading, spelling, punctuation, and other writing skills more than did children in the control group.

Further, because their typing was on matters of history, geography, and civics, they improved their knowledge of these subjects too, showing that while learning to type they were also able to retain a high degree of comprehension of the material they were using.

As Dr. Rowe pointed out, if the typewriter proved to be no more than a copying machine, its use would be limited. But, in this experiment at least, it showed up as a *writing* instrument used by the children to transcribe thoughts onto paper.

Interestingly, the experiment also showed that learning to type might actually improve students' penmanship. The youngsters, Dr. Rowe noted, were fascinated by the clear, distinct perfect letters produced by the machines, and strove to copy them. As a result of this concentration there was an actual improvement in penmanship during the experimental period.

Financial possibilities

For the district interested in starting to teach typewriting at the third and fourth grade levels, two problems must be faced—cost of the machines and, if portable electrics are used, cost of special wiring installations.

Since the latter would generally be done by the school custodial staff, costs would vary from district to district, but the installation is not complicated and could be carried out at minimum expense.

While the machines themselves are not cheap their cost is far from prohibitive. At a special discount available to schools, a classroom for 25 students could be equipped for $3,750. Since each such room could handle as many as six or seven classes a day, this expenditure would cover as many as 175 students per year. The machines used in the experiment required no repair or maintenance work, indicating that they could probably stand up under several years of steady use.

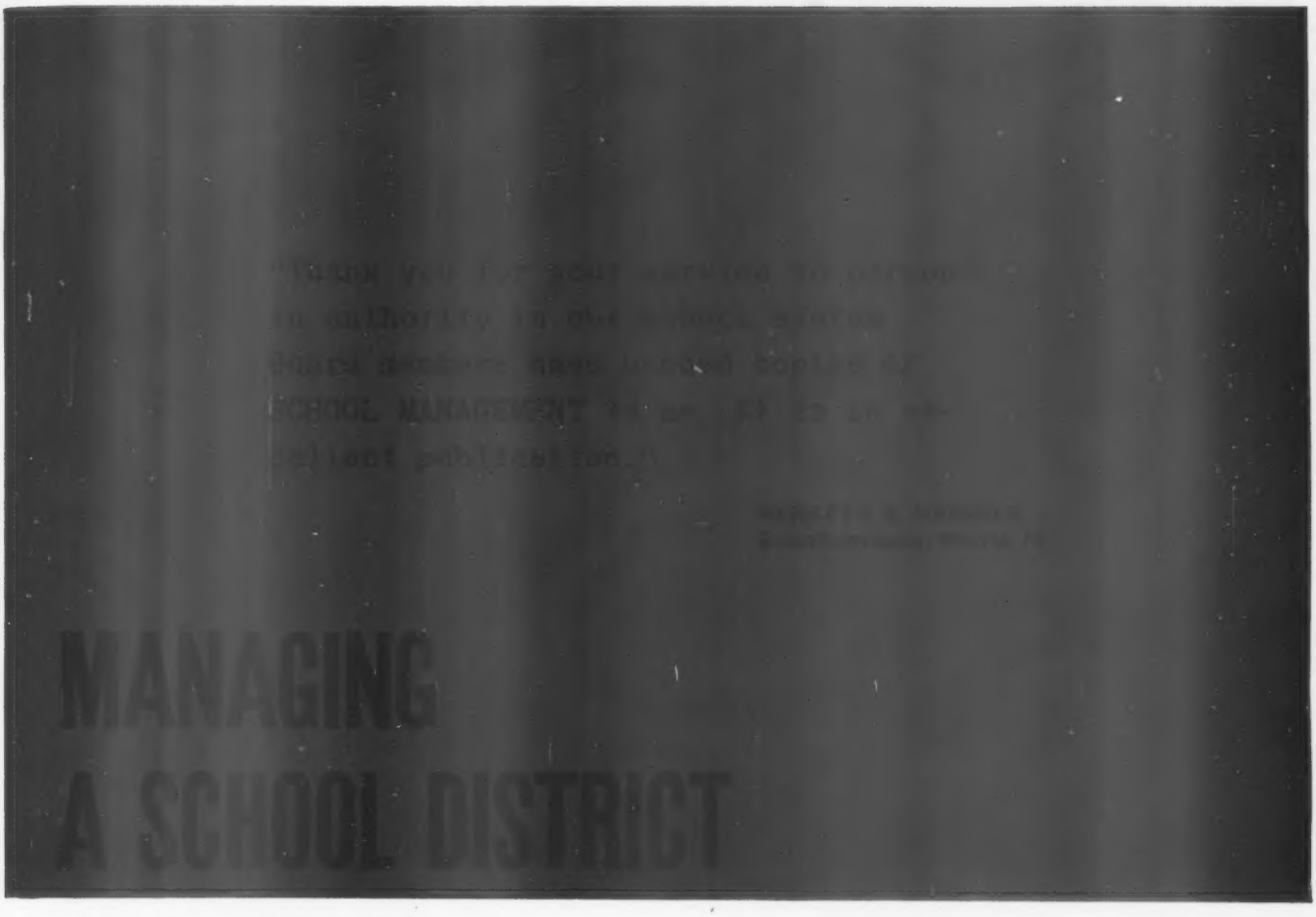
Experience with the machines in office situations has also indicated that they can produce a speed and accuracy almost equal to that of an electric standard. Because of the light weight and easy mobility of the machines, they could be used for both the school office and teaching if properly scheduled.

Dr. Rowe feels that the experiment has proved his point: children who type can learn more rapidly and more easily than those who struggle with longhand. "Certainly," he says, "teach penmanship. But why train a child to perfect his handwriting and then have him so loaded with homework that he has to scrawl his way through it. With all of today's written assignments, handwriting just isn't fast enough."

Dr. Rowe adds another provocative thought on educational automation: "I think the adding machine might well speed up a child's grasp of arithmetic, but I haven't gotten into that—yet." **End**

Playing a piano is no easier than "playing" a typewriter, Dr. Rowe told his young students. Here he demonstrates the similarity in techniques.

For more information on teaching with a typewriter, circle number 874 on the Reader Service Card.



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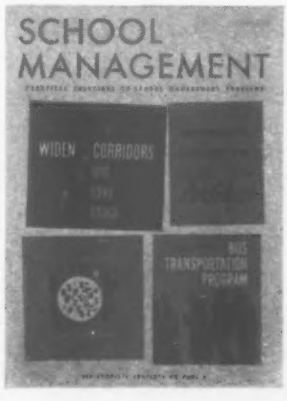

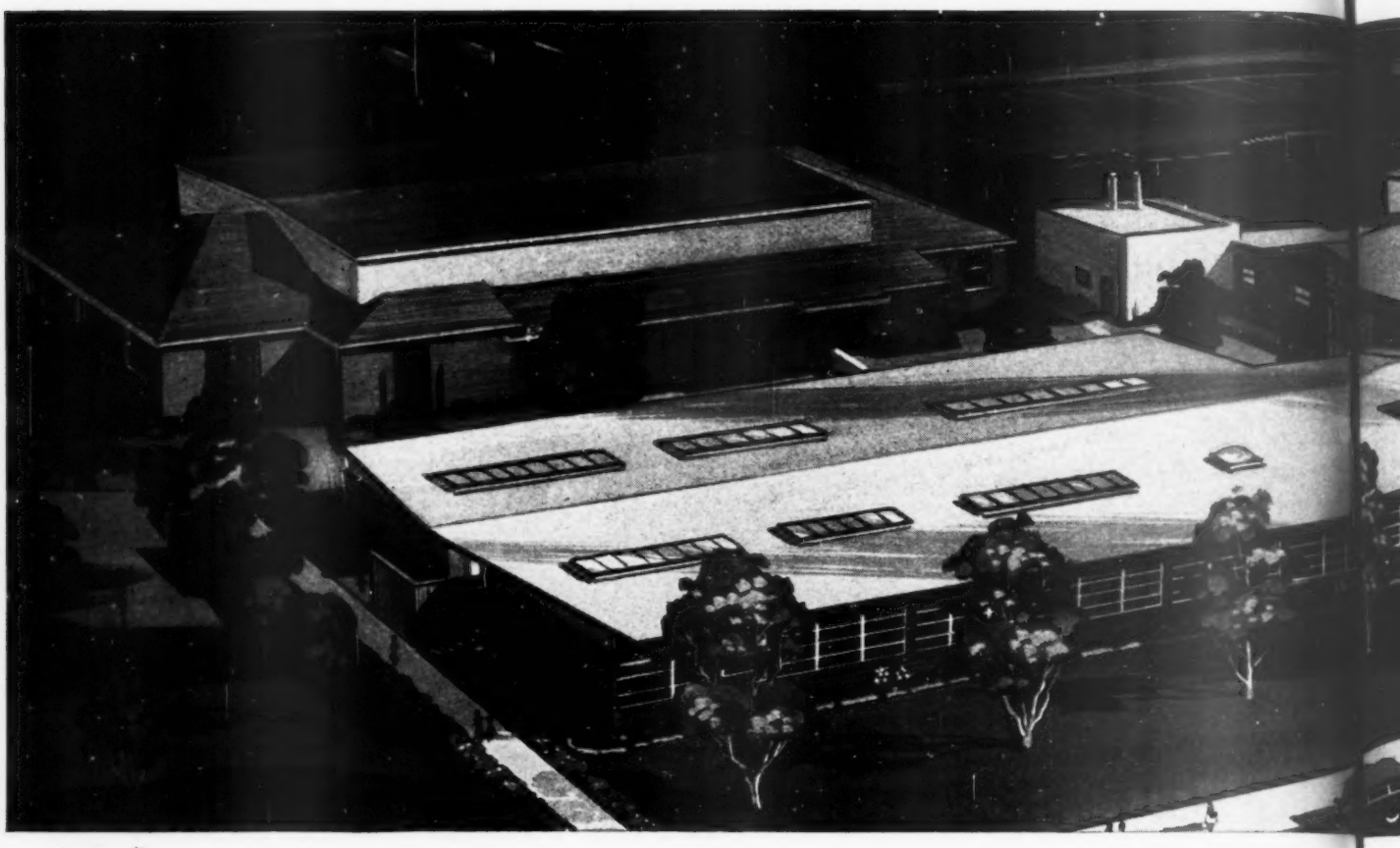

How to Assure Flexible, Low-Cost Operation in a Multi-Use

It's an elementary school, a high school, a civic center! Resourceful planning combined these much needed community facilities into a single project!

Even a sloping site became an asset in designing this modern building to meet the diversified needs of the small town of Washtucna, Washington.

On the lowest level are the elementary school rooms and a 100′ x 75′ gymnasium that doubles as a community auditorium. A portion of the former school on the site was left standing and repaired to provide shop facilities.

On the intermediate level are a multipurpose room and the library. The latter serves both the school and the community, while the former is used as the school cafeteria, as a band and music room and as a civic and social meeting place. The room is also equipped for use by physical education classes. And, thanks to the sloping site, a proscenium opening converts one end of the room to a stage, complete with curtains and lights, three feet above the gymnasium where the audience is seated.

The upper level houses the high school classrooms and administrative offices.

Such multiplicity of use often requires "after-hours" heating and ventilating in one or more rooms of the building. To meet this usage pattern, the specialist Johnson organization installed a pneumatic temperature control system that makes it possible to heat and ventilate *only the room or rooms in use, while maintaining the unoccupied rooms at reduced economy temperatures.*

The Johnson System allows complete flexibility of control to meet each of the varied comfort requirements in the building. It assures

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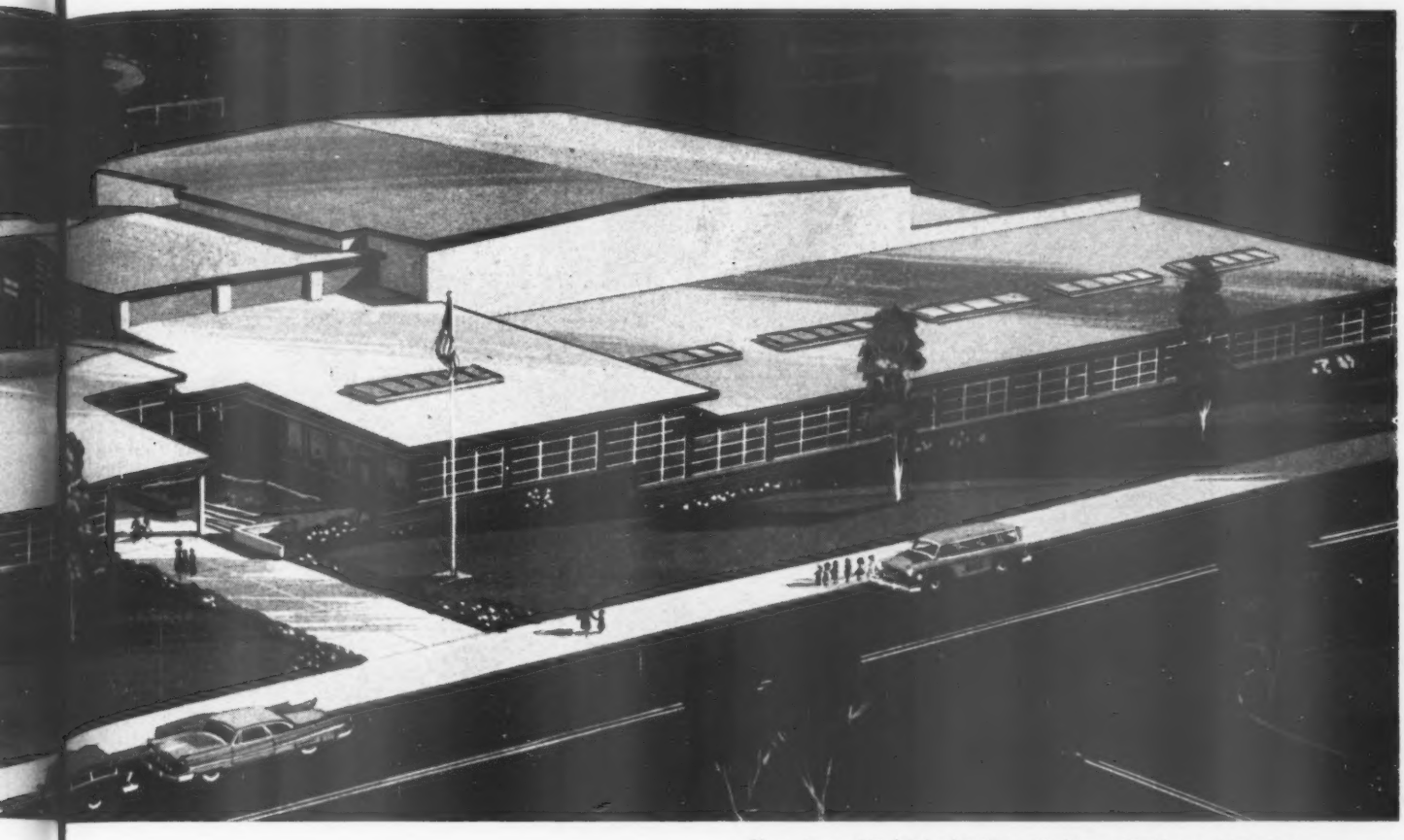

Elementary and High School Building, Washtucna, Washington. Victor Louis Wulff, AIA, architect, Spokane; Lyle Marque & Associates, mechanical engineers, Spokane; Peter J. Young & Son, general contractors, Spokane; W. R. O'Rourke Co., mechanical contractor, Walla Walla.

Heating School

the best possible thermal environment for the youngsters in school and provides equally ideal conditions for other purposes. Yet it eliminates all needless heat waste, overlooks no opportunity to save fuel. The savings are large.

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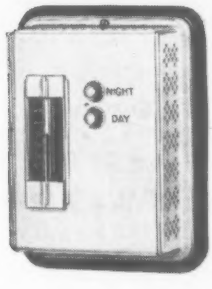

During school hours, a Johnson *Dual* Thermostat on the wall of each room assures ideal temperatures and proper ventilation throughout the building. For "after-hours" comfort, occupants simply press the thermostat button for normal heat and ventilation, while low, nighttime economy temperatures are maintained in all unoccupied rooms.

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BLUEPRINT FOR LOCAL ACTION:

Industry helps L. A. strengthen its science program

Here's another example of the great potential to be found in close cooperation between business and schools.

■ ■ ■ As California's Hughes Aircraft Co. sees it, industry can perform a major service to secondary education by establishing the value of pilot programs for which individual school districts lack resources.

Industry may or may not continue the programs it tests but, in either case, evaluation of the trial run enables schools or other community agencies to decide whether the program is worth adoption by them and, if so, to budget for it.

This "let's try it out" philosophy has, for the past three years, steered Hughes into a variety of projects designed to supplement high school science and mathematics education. Among the projects Hughes has initiated, are the following:

At a Los Angeles high school summer session in 1956, Hughes physicists gave a series of demonstration lectures, carefully correlated with the course of study, and thus created the prototype of a now-booming classroom enrichment program.

Other local industries have since joined the program (SM *April '58, pg. 80*). In 1957-58, Hughes and other firms supplied the schools with 77 speakers who gave 340 demonstration lectures to high school classes in physics, chemistry and math.

Also in 1956, Hughes hired 10 high school science and math teachers during summer vacation. The purpose was to familiarize them with industry's needs. Says D. S. Barlow, director of engineering for Hughes Products Group: "How can a teacher know what to teach unless he knows how the product of his teaching is going to be used?"

Hughes—and the schools—got an unexpected bonus from this ex-

Two teachers employed by Hughes Aircraft during the summer of 1957, discuss operation of a giant digital computer with company engineer.

Four students on a summer study scholarship worked on a civil defense problem with a company engineer. Each student received $400 "wages" and an equal amount towards a college education.

Teachers return

periment. The teachers wrote a textbook on computers which has since been in wide demand by other teachers as an instructional guide.

Hughes has continued to hire teachers during the summer, having expanded the program to include college teachers and some bright students. About 108 were on the payroll this summer. Job placement is determined for its carryover value to the classroom and to other teachers (many of whom will share the employed teachers' experiences vicariously through school-sponsored workshops this fall).

Says L. C. Van Atta, head of Hughes' office of technical information and education: "We make no effort to 'get our money's worth' from these employees, but we have found that even in the first summer of employment we get an appreciable return. By the second summer they pay their own way."

Adds David Randolph, Los Angeles City Schools' coordinator for the industry-education program: "It has been found that the teachers return to the classroom with a new perspective, require more rigorous work from their students and apply their new knowledge with an enthusiasm and confidence that inspire their classes."

In 1957, 12 bright high school students—each on the threshold of his senior year—received "summer study scholarships" at Hughes, which paid them $40 a week for 10 weeks plus a $400 lump sum grant for college. The students were chosen on recommendation of their high schools.

They were put to work as a team to design a civil defense gaming model for the Los Angeles area, a high school project first tried by Dr. Ellis A. Johnson of the Operations Research Office in Washington, D. C.

"They proved to us that a group of gifted students, furnished with proper background and properly guided, can do an adult piece of research," says J. M. Glass, head of Hughes' engineering standards office.

But they also proved that selection procedures had been a shade casual for a team project. The students turned out to be unevenly matched as to qualities of leadership and "followership" and also as to emotional maturity. Additionally, Hughes executives discovered that to supply the proper background and guidance took a colossal amount of time.

It is now their opinion that: formal instruction is a function of the school, not an industrial laboratory, and that youngsters might make greater progress working as individuals in such a laboratory. These opinions have shaped the programs Hughes is now supporting.

This year, Hughes supplied $3,000 in support of a program initiated by the newly-formed Committee for Advanced Science Training, a group directed by seven faculty members of Los Angeles-area universities and headed by the University of Southern California's Dr. Harry Sobel.

As in the previous year, high schools recommended top students. After personal interviews, CAST chose 15, awarding 12 of them $250 summer scholarships and accepting three others without stipend.

("This was a mistake," Dr. Sobel says. "Even though those three did not need the money, they interpreted their different status as inferior, and one quit.")

These students were assigned directly to assist senior research workers in various hospital, university and industrial laboratories. One was responsible for "a little piece" of a continuing project on cardiac hypertrophy. Another studied the effect of hormones on metabolism. A third specialized in marine zoology.

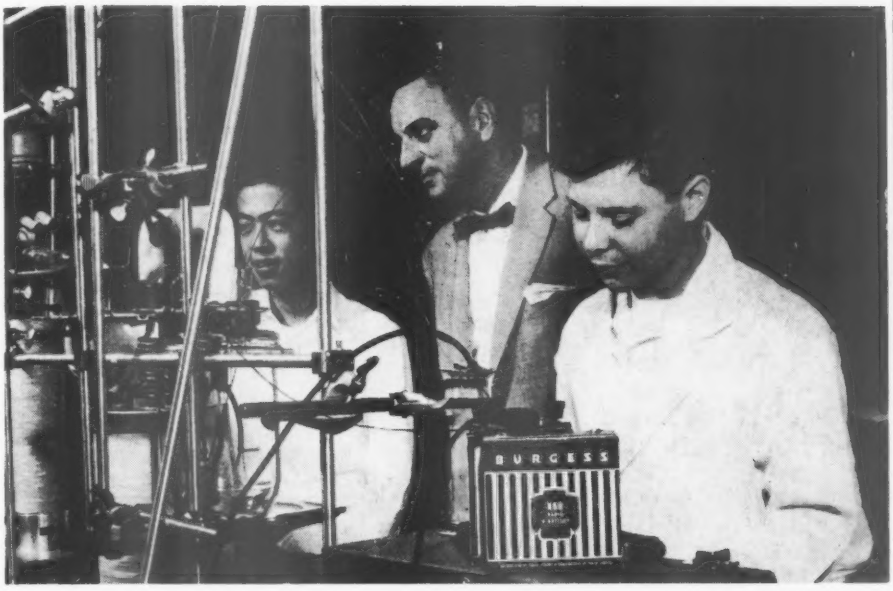
Of the two who went to Hughes' chemistry labs, one learned to operate an electron microscope and the other worked on the synthesis of materials to be used in the control of microwaves. Happily reports Senior Chemist Dr. R. A. Spurr: "Fears that they'd be a nuisance were unfounded. In fact, they actually helped."

A symposium, open to the public, was scheduled for mid-September, at which time each of the CAST scholars read papers on their summer research projects.

Remembering its 1957 opinion that formal instruction is a function of the schools and that, to quote Van Atta, "our role is to back them up rather than take over their jobs," Hughes has joined with several other organizations for still another experiment in secondary education.

This time the locale is The

to the classroom with new enthusiasm



Two students learned about measurement of electrical properties of materials at low temperatures in the company's atomic physics department. Other students did research work in hospitals, university laboratories.

Thacher School (a private school for boys) in Ojai, Calif. The pilot program, which is slated to get underway in the summer of '59, if it can be financed, will offer 25 gifted students a concentrated seven-week dose of "Satellite Observations."

Personnel from the California Institute of Technology will plan and guide morning classroom instruction on radio, optics, trajectory calculations, etc. Hughes will supply guidance and equipment for an afternoon program in which the morning's formal instruction will be applied to planet and satellite observation.

Estimated cost of the program is $25,000. California's Helms Foundation has pledged half, and matching funds have been sought from the National Science Foundation. As of this writing, however, the NSF has not decided whether to support the program, since to make a grant to a secondary school would depart from established policy and set a precedent.

Why is Hughes putting so much effort into programs for education?

Answer: Long-term self-interest.

Naturally, Hughes wouldn't mind turning up a genius who'd make the company $1 million, but the firm is more than willing to settle for manpower capable of carrying forward already-initiated projects.

Says Joseph Cryden of the advanced studies staff: "When we realized that technical education was falling behind industry's needs, we also recognized that this would react adversely on us. So we're trying to do something about it."

Adds Dr. Spurr: "A very effective intangible force is the fact that a lot of us have been teachers and get enormous satisfaction out of contacts with educators and educational problems."

Sums up Van Atta: "At Hughes we have the really precious commodity—technical personnel, scientific know-how and facilities. We think we have an obligation to share them.

"We are convinced that most technically oriented companies will see the need of participating in such programs. What each does will be for the good of all." **End**

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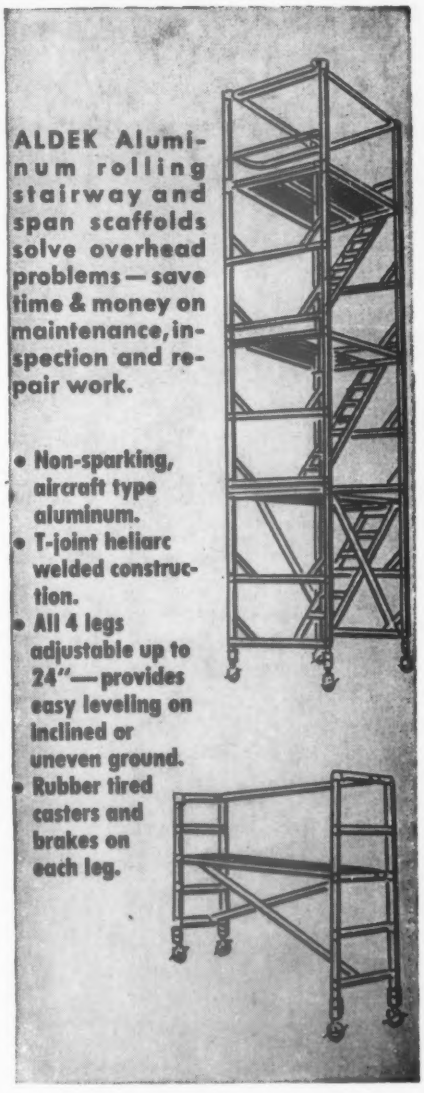

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THE PICTURES:

EARLY BIRDS—Left: This picture was taken in August. On September 2, the boys probably weren't nearly so anxious to get inside their new AmBridge Modular School. But, once in, they'll find that lots of natural light, color and modern beauty will help make learning a little easier for them.

A IS FOR ATTRACTIVE—Below left: The beauty of this AmBridge Modular School will always remain because the weather-tight, vermin-proof walls are made of durable steel. Permanent panels eliminate extensive refinishing and frequent cleaning. Modular construction makes expansion of this school a simple matter.

B IS FOR BRIGHT—Below center: A comfortable teacher's room—typical of the auxiliary features easily incorporated in any USS AmBridge Modular School. Interiors come in 16 colors.

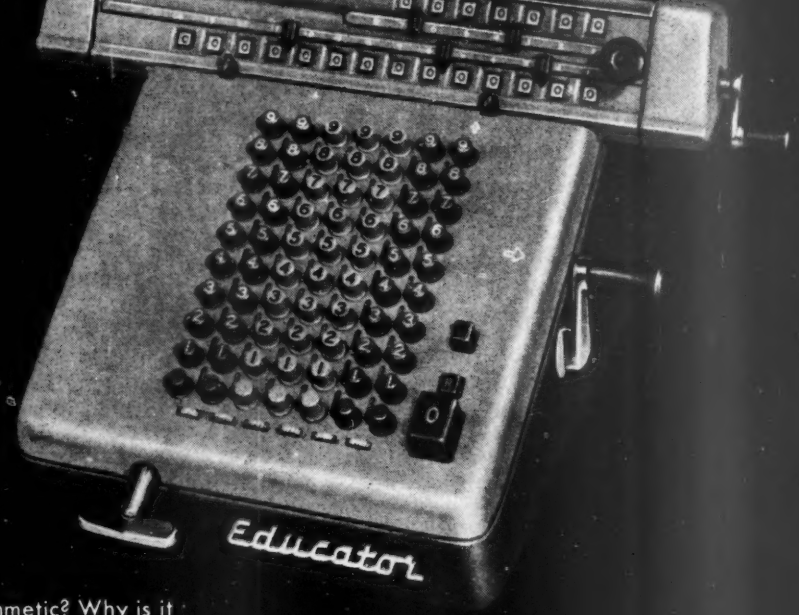
C IS FOR CHEERFUL—Below right: Everyday is a bright day in this pleasant, well-lighted classroom . . . a natural environment for study. Since steel partitions don't support roof, the room size can be changed easily at any later date.

l: a lesson for you?

For today's crisis in Science

...an ADVANCED

method of teaching arithmetic



Why do so many children dislike arithmetic? Why is it that many really good students depart from school ill-equipped to meet the demands of our scientific society? Considering questions such as these, the Monroe Calculating Machine Company has developed a new, advanced approach to the teaching of arithmetic. Based on the studies of Dr. Howard F. Fehr, Head of the Department of Teaching of Mathematics, Teachers' College, Columbia University, the techniques involve the use of classroom calculators. Results have shown that calculator-assisted classes are more proficient, comprehend more and, perhaps most important of all, enjoy arithmetic more. The nature and philosophy of calculator teaching are clearly stated in Monroe's new booklet: "Arithmetic Minus Mystery Equals Understanding." For a competent understanding of the problems of arithmetic teaching, send for your free copy today: Educational Department, Monroe Calculating Machine Company, Orange, New Jersey.

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THOUGHT STARTERS

A monthly review of ideas, new products and helpful hints

Contract-janitor saves money for Ohio board

The Beaver Local Board of Education in Columbiana County, Ohio, reduced cost of janitor services in its schools by 20% when it let the work out on contract instead of hiring janitors on a standard salary basis.

In 1957 the board adopted a proposal to hire the janitor on a contractual basis whereby duties are specified in keeping with state department requirements in Ohio. The board felt that a contract might attract better janitors; it allows the janitor to "subcontract" part of the duties to some other member of the family or other responsible person when the principal contractee is called elsewhere.

The affected schools have 625 students in seven elementary grades, 19 teachers and a full-time principal. Twenty classrooms, one cafeteria and one kitchen comprise the building facilities. In addition to building cleaning and maintenance, janitor duties include upkeep of grounds.

It cost the board $5,600 for janitor services before the work was let under a contract for one year. Cost has been reduced to less than $4,500.

Partitioned paper plates eliminate costly installation

The well-known cafeteria tray and the dishwashing that goes with it are things of the past at the Spring Lake, Mich., elementary school, where partitioned paper plates are used to serve lunch-time meals to the students.

The plates hold all of the food for a meal, except on days when soup is served. Meat and potatoes are comfortably contained in the largest partitioned area, while vegetables and dessert are each neatly separated in the two smaller sections.

Four hundred and twenty-five children are fed daily at the school, and in 40 minutes the entire lunch period is over with all the paper plates disposed of in an incinerator. One student helper handles the disposal operation.

Superintendent J. E. Holmes of Spring Lake instituted the use of partitioned plates when the district's new elementary school was built. In addition to speeding up the lunch hour considerably, the system does away with all investment in dishwashing equipment and the necessity of picking up, cleaning and stacking dishes and trays.

For more information on partitioned paper plates, circle number 903 on the Reader Service Card.

Man smart, woman smarter

"Man smart but woman smarter," a Calypso song in vogue a year ago, may well be true, at least at the high school level.

A survey made in Minnesota of valedictorians in the state's public, private and parochial high schools showed that of 635 valedictorians, 436—better than two of every three—were girls. In the public schools there were 392 female valedictorians compared to 179 males. The private and parochial school valedictorians included 44 girls and just 20 boys.

The *Minneapolis Tribune*, in reporting the survey, expressed the opinion that this did not necessarily prove that girls possess more native ability than boys —but the paper presented no evidence on this score.

Seven steps to school progress

A group of school superintendents from 33 different cities, meeting at a three week conference at Teachers College, Columbia University, drew up a seven point plan to improve the quality of the nation's education.

The items, worthy of consideration by all administrators and citizens, were as follows:

1. *Every child should have a capable and inspiring teacher to motivate the development of intellectual, physical, moral and social strengths.*

2. *Schools need teachers with strong academic backgrounds and an understanding of childhood development, to lift the level of education.*

3. *Repeated evaluations should be made to insure pupil progress, proper budgeting and effective teaching.*

4. *Communities have the responsibility of financing and participating in programs to improve instruction.*

5. *Only adequate finances can insure good education.*

6. *Better education depends on cooperation between the schools and the citizens.*

7. *Better guidance programs from kindergarten through high school are badly needed.*

In-service program conducted outside

The entire professional staff of the Lawndale, Calif., school district has embarked on a unique program of in-service training which, after only one experience, has brought enthusiastic reaction in a field which teachers often look upon as a "necessary evil," reports James R. Orr, principal of the district's Franklin D. Roosevelt school.

Through the district administration a mountain summer camp was reserved for a week-end. This made it possible to take teachers out of their everyday surroundings and place them in a restful, resort-like atmosphere. The results were amazing. Teachers, principals, administrators, *and board members*—with their families—engaged in many recreational as well as in-service activities with enthusiasm and genuine interest.

The major objective was professional growth, but time was devoted to activities where everyone could relax and get to "know" persons who had been teaching in one of the district's several schools.

For several weeks prior to the camp, committees composed of teachers, principals and district office personnel planned the week-end program.

It was decided that major emphasis for the in-service training program would be in areas of science: nature study, astronomy, and conservation. In addition, another topic was added on the use of maps and globes.

Specialists were obtained in these

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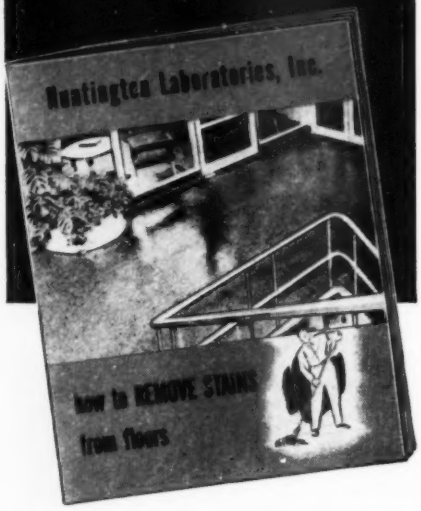

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fields to lead the various groups. A forest ranger, two instructors from a nature and conservation school, an astronomer from the Griffith Observatory in Los Angeles, and a representative from a map company all donated their time.

The following is the program which was established for the two day camp conference:

Saturday:

7:30 A.M.	Departure from district
11:00 A.M.	Arrival at camp
12:00 Noon	Lunch
12:45 P.M.	Recreation—volleyball, baseball, hiking, bridge, etc.
2:30 P.M.	In-service sessions: Section I—Map and globe demonstration Section II—Nature study: Group I—Nature walk (botany) Group II—Nature walk (geology) Group III—Nature walk (animal life)
4:00 P.M.	Recreation (same as above)
5:15 P.M.	Dinner
6:00 P.M.	In-service session—astronomy
7:00 P.M.	Evening activities—Group singing, cards, square dancing
9:30 P.M.	Evening snack

Sunday:

7:00 A.M.	Reveille
7:30 A.M.	Breakfast
8:15 A.M.	Devotional services
8:45 A.M.	Recreation (same as Saturday
10:00 A.M.	In-service sessions: Section I—Map and globe demonstration Section II—Conservation of resources: Group I—Nature walk Group II—Nature walk Group III—Nature walk
11:00 A.M.	Clean up and pack
11:30 A.M.	Lunch
1:00 P.M.	Departure for home

In planning a conference of this nature a few things should be kept in mind Principal Orr says. The camp should be held early in the school year. This can start the year off with morale at a high pitch. Teachers, new and returning, will become acquainted earlier and, above all, new ideas can be put into immediate practice. Serious consideration should be given to having a separate program for those children who are present. Selection of an adequate camp is extremely important. The camp can seriously limit the type of program. It is also important to have the camp as near as possible so that traveling time does not unduly take away from program time. Teacher participation in planning all phases of the program is of the utmost importance.

Goofing-off now grounds for expulsion

Failure to be diligent in study—more commonly known as goofing-off—may be grounds for expulsion from Monterey County, Calif., schools, according to an official opinion issued by the county counsel's office.

This may give educators a powerful weapon to combat student lethargy and misbehavior.

It was held that such student misconduct can have a far-reaching demoralizing effect on classmates and teachers.

In the past except for efforts to cajole, discipline or "motivate" such problem cases, teachers have had no way of removing these disrupting pupils.

Bert Lindsley, deputy county counsel, held that failure to keep up grades comes under the definition of misconduct, the general term under which suspension or expulsion may be ordered in California. The student, he said, is not fulfilling his duties and, hence, the privilege of school attendance is forfeit.

He also emphasized that poor grades in themselves would not constitute grounds for expulsion. The students who make no attempt to study are the ones the rule is aimed at weeding out.

Science qualifications found to be lacking

How well qualified are the science teachers in your district? Two recently-completed state-wide surveys seem to show that in many areas science teachers lack much of the training necessary to inspire students to continue in that line of endeavor.

In Minnesota, a survey taken by the University of Minnesota showed that the state's mathematics and science teachers were only "moderately well qualified" in the subjects they teach.

The Minnesota survey revealed that many teachers have no more than the very minimum requirements in their subjects and that far fewer have taken what would be considered a "desireable" number of course credits in their particular fields.

In mathematics, for instance, it was found that more than 13% of the state's teachers lacked even minimum

qualifications in their subject, while almost 40% had less than the desired minimum number of course credits.

The survey also revealed that in many instances persons better qualified to teach mathematics and science than those holding these positions were not teaching the subject in their schools.

In Ohio, a survey completed by Dr. Charles Koelsche of Toledo University, showed that most general science teachers in the state lack the broad training necessary to inspire their pupils to seek further courses in specialized science fields.

He found that the highest proportion of properly-trained teachers was in schools with 500 or more students, where science teachers could work in that field exclusively.

Dr. Koelsche concluded from his survey that in order to obtain enough fully qualified science teachers, schools will have to set specialists' salaries starting at $7,000 to $8,000 a year. The average salary of the science teachers he interviewed was just $4,900.

Where to look

The annual report of the Los Angeles city schools includes this tip for school districts now accelerating their efforts to identify the gifted:

"Children who are blind or partially sighted, crippled or delicate, deaf or hard of hearing may often be overlooked in the search for those of superior mental ability.

"A survey of such pupils in our schools revealed that *about one out of every 20* of such physically handicapped pupils was qualified for inclusion in this group."

An IQ of 130 or higher was the measure used.

Test Pennsylvania buses for carbon monoxide

Pennsylvania state police conducted rigid carbon monoxide detection tests on 8,000 school buses during the month of August. The tests were the result of a new safety program instituted by the state bureau of highway safety.

The tests were conducted with a scientific carbon monoxide testing instrument introduced to 200 state police and state officials. The instrument, manufactured by Mine Safety Appliances Co. of Pittsburgh, is so sensitive that it can measure the amount of carbon monoxide in cigarette smoke.

Pennsylvania is believed to be the only state which has set up an official program of this type for school bus safety.

"Although we have one of the finest inspection systems in the country, this step was taken to eliminate any possibility of ill effects to school children from even the slightest trace of carbon monoxide fumes seeping into the interior of a school bus," O. D. Shipley, director of the state safety bureau, said.

In the tests bus engines were operated in a properly ventilated garage for 20 to 30 minutes with all windows closed. Air samples inside the bus were taken by inserting a thin copper tube through small openings at the front and rear of the vehicle.

The air samples were drawn into the tester by means of a rubber suction bulb. The hand-held instrument is equipped with a sensitive detector tube. If carbon monoxide is present, the contents of the tube turn green. The amount of carbon monoxide present is indicated by the intensity of the green color. A color scale mounted beside the detector is compared with color of the chemicals in the tube to establish the percentage of carbon monoxide present in the sample.

Mr. Shipley said some of the state's 8,000 school buses have been in service as long as eight years.

Personnel policies put in writing

Discontent over promotion policies, or lack of them, in the Denver, Colo., school system, will be greatly tempered this fall by new written standards.

The standards were compiled by the school employees council and approved by Superintendent Kenneth E. Oberholtzer after a three year study.

The new policies replace older, mostly unwritten and misunderstood, ones. These have resulted in charges of favoritism and subjective reasoning on the part of school administrators.

The new policies call for candidates interested in promotion to seek it out, rather than waiting to be asked, as in the past. A minimum of five years experience in the Denver system is necessary before promotion.

Other criteria adopted in the new statement include:

Scholastic background must be "of a quality and nature advantageous to the position desired."

The candidate must be recommended by someone in a position to judge his administrative ability.

He must have contributed to the school program through "committee service, professional publications or advanced training and by participation in professional organizations."

The administration is to outline areas of study to qualify for specific positions.

Promotions should be made from within when possible.

Employees may submit letters and documents relative to personal background and experience.

A suggestion that openings be listed at regular intervals was turned down by the superintendent because school officials felt such a list would be impossible to compile. They pointed out that one opening often leads to several others because of the "moving up" process.

Memories

Graduates of Nutley, N. J., High School will have a permanent reminder of "those good old school days."

Each student is being given a 45 RPM recording of the sounds of special events—the ninth grade prom, the opening of the senior play and other moments to remember—as part of their senior class yearbook.

The record slips into a special envelope in the yearbook.

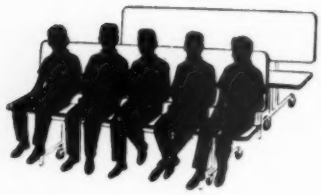
Electric heating experiment to start

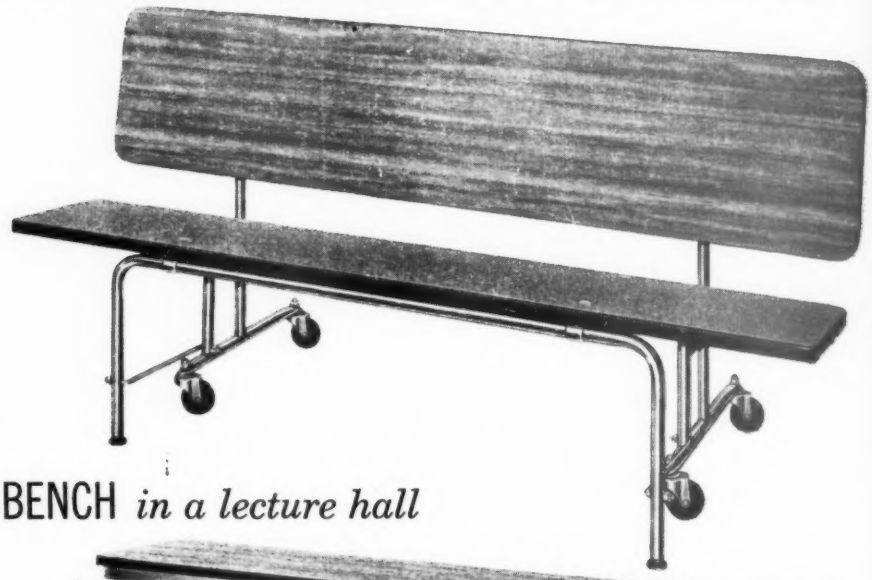
Two new schools in Utica, Mich., scheduled for occupancy this fall, will use electric space heating systems instead of conventional oil or gas. The success of the heating plan will be studied throughout the area by districts looking for possible ways to cut costs.

The electric heaters saved money in construction costs but will be more expensive to operate. However the board estimates that it will take 30 years to consume the installation saving. Each classroom will have its own adjustable heater.

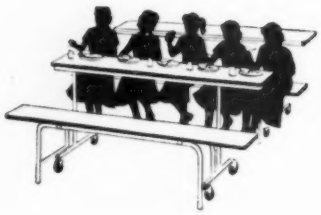
The feature that sold the Utica system on electric heating was elimination of the boiler room. This has been replaced by a classroom, giving each building 13 instead of 12 as had been planned. "An extra classroom means a lot in these days of swelling enrollments," Superintendent Fred M. Atkinson said. "That's one reason other districts are so interested in what we're doing."

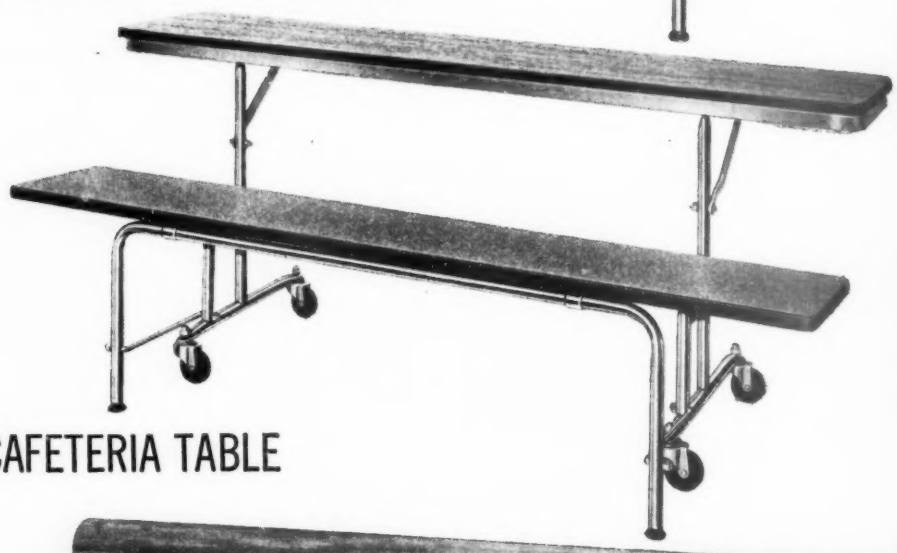
NEW SICO 2800 – BENCH-TO-TABLE UNIT



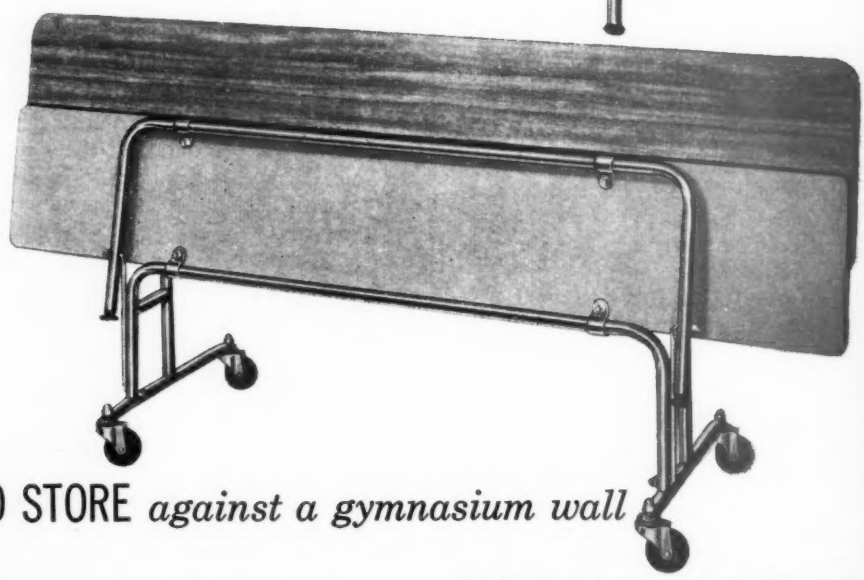


it's a COMFORT-DESIGNED BENCH *in a lecture hall*

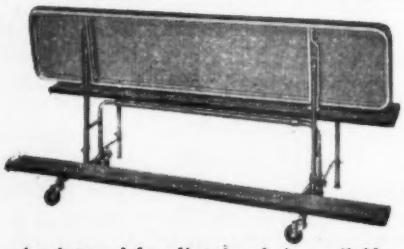




two seconds later it's a CAFETERIA TABLE



6 seconds later... READY TO STORE *against a gymnasium wall*



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HOW YOUR TOWN CAN PROVIDE

Scholarships for needy children

Here's what Fall River did to give its deserving students the opportunity to get a higher education. Your community can copy it — if your people care.

■ ■ ■ Last November a young optometrist named Irving Fradkin ran for election to the school committee of Fall River, Mass. A major plank in his platform called for the creation of a community scholarship fund to assure deserving students a chance for higher education.

Dr. Fradkin lost the election, but he kept his campaign promise. The result is a remarkable community organization—the Citizen's Scholarship Foundation—whose adroit combination of practicality and idealism deserves national attention.

Fall River is a moderately large city (pop. 112,000) on the southern coast of Massachusetts. Once the nation's busiest textile center, with more than 110 mills, the city is today in a severe economic slump. Only three mills remain open, and unemployment is dangerously high.

Even in prosperity, education beyond high school had been impossible for most Fall River citizens. College tuitions were prohibitively high, though some students did get training in nursing schools, junior colleges and the state university. With the slump, despite a handful of scholarships offered by the PTA and other local groups, the number of students who put in a bid for higher education dwindled toward a vanishing-point.

Now, in less than a year, this trend has been sharply reversed. Response to the newly-created foundation, which opened its first drive last February, was surprising —not only from the community (which subscribed over $4,000), but also from the students themselves. Applications were submitter by 63 seniors, four times as many as applied to any of the organizational scholarship programs. Nearly two dozen students participated directly in fund-raising activities.

Twenty-four scholarships (*see* SM, *Aug. '58*) ranging from $50 to $300 (equal to the largest scholarships ever given in Fall River) were awarded in a gala presentation ceremony last June. "Fifty dollars may not seem like very much," Dr. Fradkin notes, "but it is one-third the cost of a nursing course. A $100 scholarship is 100% of the tuition of our state colleges." Many of the scholarships are scheduled to be renewed in the same amounts for three more years.

Hope created by the foundation has even percolated down to the earlier grades. School guidance officers are advising students to prepare for higher education—advice which would have been highly unrealistic a year ago. And school officials expect a quick increase in enrollments for college-preparatory courses.

What worked the magic? Obviously the students desired higher education. Now, quite simply, the money is available. Most important, it is available to Fall River students now. With a little effort it can be available in any community next year.

A key factor is the scope of the foundation. A community enterprise in the truest sense, it makes scholarships available to graduates of all the city's schools, private and parochial as well as public. And, whereas most scholarship programs aim at sending top students to four-year colleges, the foundation invites applications from any student in the upper half of his class, headed for any sort of accredited higher education, including trade and vocational training.

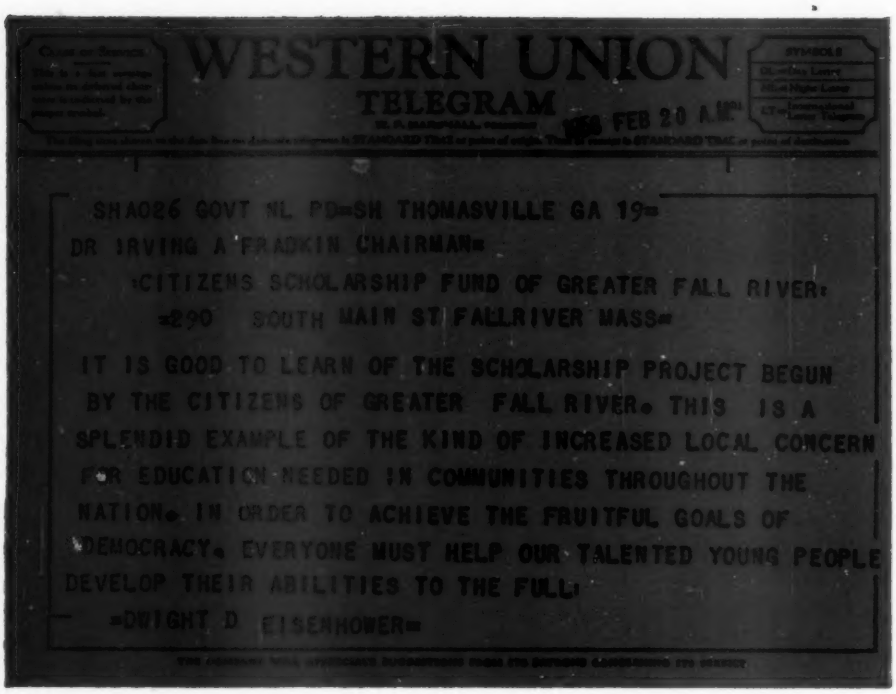
Funds for the community scholarships are raised in three ways: from individuals, from groups and from repayments by scholarship winners.

Central to the plan are $1-a-year individual memberships, from which nearly all the foundation's income was derived the first year. Each citizen of Greater Fall River (the city, plus four nearby townships) was asked to join. Several means of soliciting memberships were tried, with varying success:

■ **Direct invitation:** Many individuals took books of membership cards and urged their personal friends to sign up. This system was extremely effective, but slow: it seems virtually impossible to cover a large city by this means alone.

■ **House-to-house canvassing:** Somerset, one of the small townships, found this system miraculously successful. During a single day, designated as SOS (Support Our Scholarships) Day, a team of students and adults approached roughly 75% of the 2,000 families, asking each family for a single membership. They took in $1,000.

For a larger city, such as Fall River itself, this system proved



WESTERN UNION
TELEGRAM
FEB 20 A

SHA026 GOVT NL PD=SH THOMASVILLE GA 19=
DR IRVING A FRADKIN CHAIRMAN=
CITIZENS SCHOLARSHIP FUND OF GREATER FALL RIVER=
290 SOUTH MAIN ST FALLRIVER MASS=
IT IS GOOD TO LEARN OF THE SCHOLARSHIP PROJECT BEGUN BY THE CITIZENS OF GREATER FALL RIVER. THIS IS A SPLENDID EXAMPLE OF THE KIND OF INCREASED LOCAL CONCERN FOR EDUCATION NEEDED IN COMMUNITIES THROUGHOUT THE NATION. IN ORDER TO ACHIEVE THE FRUITFUL GOALS OF DEMOCRACY, EVERYONE MUST HELP OUR TALENTED YOUNG PEOPLE DEVELOP THEIR ABILITIES TO THE FULL=
DWIGHT D EISENHOWER=

Support for the Fall River scholarship campaign came from many nationally-known figures. Among those responding were President Eisenhower, *(see left)*, Eleanor Roosevelt, Dr. James Killian and Massachusetts' governor and two senators.

much too cumbersome. Current plans are to use it this year only in the small townships.

■ **Bank and post office day:** For one entire day, members of the Council of Women's Organizations sold memberships from poster-decorated booths in banks and post offices. They had moderate success.

■ **Collections through organizations:** A large number of organizations—unions and businesses, ethnic and religious groups, and a variety of clubs and associations—conducted membership drives within their own lists. The foundation assisted with posters and speakers, and the drives were generally effective.

One highlight: The Globe Rubber Thread Manufacturing Co. authorized its foreman to offer foundation memberships to its 219 employees. In just five minutes per shift, he signed on 219 members. Company President Thomas Rodgers then matched his men with a personal subscription of $219.

■ **Cap and gown day:** To wind up its 1958 campaign, the foundation arranged with local merchants to set up booths manned by students in caps and gowns, at favorable sites inside their stores. From these booths, shoppers were invited to buy memberships in the foundation.

This system was very successful and will become the basis for an expanded effort this year. Thought is being given to the possibility of approaching customers on sidewalks, rather than in stores, and of supplementing the membership drive with a coin-in-the-can collection.

■ **In-school collections:** "Students buy insurance in school every year against accidents and sickness," Dr. Fradkin points out. "Why not let them insure their own chances for a higher education?"

To help them, a plan is now being discussed to collect foundation membership dues of 25¢ a week for four weeks from students in the eighth through 12th grades, and of 10¢ a week for five weeks from students in lower grades. All such memberships would be voluntary.

■ **Merchants for scholarship day:** Every year, Fall River merchants hold a special Fall River Day, highlighted by raffles with store merchandise as prizes. Foundation officials hope to persuade the Chamber of Commerce to convert this into a Merchants for Scholarship Day. Drawings would be based on numbered fund membership cards, with prizes donated by merchants.

Separate from these individual memberships, foundation officials see a wide-open field for group contributions. These would be sums of money raised annually by local groups and turned over to the foundation for disposition. Each such contribution would be named for the donor and listed as a component of the community scholarship fund. Each contributing group would appoint a member to the foundation's board of directors.

The scholarships themselves, however, would be presented to students in the name of the foundation. Thus, while the donating group would receive recognition, the student would still receive his scholarship from the community.

Half-a-dozen organizations—including Knights of Columbus, B'nai B'rith and the youth organization of the YMCA—have expressed definite interest in making such contributions. At least a dozen more are expected during the 1958-59 campaign. And not all will be under organizational names: at least one will be a memorial to a community spiritual leader.

Finally, in future years, income to the foundation will be bolstered by repayments from scholarship winners. The scholarships are of course, given free and clear. There is no demand for repayment. Winners are expected, however, to feel

a moral obligation to see that others enjoy the same opportunity.

Essential to all these fund-raising activities is constant and effective publicity. Last February, Fall River Mayor John Arruda proclaimed the campaign's kickoff week as Scholarship Week. The Fall River *Herald-News* and local radio and television stations plugged the drive. Local businesses contributed full-page newspaper ads. Civic and school officials, and the presidents of many organizations, lent their names. A speakers bureau was set up, through which students and adults addressed a number of local groups.

At the same time, Dr. Fradkin engineered a special publicity campaign, which he describes as "working from the outside in." Calling the Fall River plan to the attention of educational leaders across the nation, he inspired write-ups in newspapers as far from Fall River as Indiana and Texas. Mrs. Eleanor Roosevelt became a charter member, followed by the governor and both senators of Massachusetts, the state commissioner of education and President Eisenhower's scientific advisor, Dr. James Killian. A congratulatory telegram from the President himself arrived just in time for the drive's kickoff meeting.

Scholarships for whom

The thorniest problem facing the foundation this first year was devising a system for awarding the scholarships. The awards had to be absolutely impartial, and had to strike a fair balance in weighing each applicant's financial situation, scholastic prowess and tuition needs. School officials helped devise a point-rating system which solved this program.

Briefly, the point system works this way: The applicant reports his family's total annual income. From this amount, standard deductions are made for each dependent, and a graduated percentage of the remaining income is assumed to be available for the applicant's higher education. He is also assumed to have earned a standard amount through summer work, and any other scholarships he may have won are taken into consideration.

The applicant's anticipated expenses are then computed, with standard allowances for clothing and miscellaneous expenses. The difference between these expenses and the amount already available to him is then reckoned in points.

To this "score" are added points based on the applicant's grade average, his IQ (non-college-preparatory students only) and his achievements in extra-curricular activities and outside employment. In all, an applicant can score up to 45 points for need, 35 for scholastic standing, five for extra-curricular activities and five for employment. Up to 10 additional points may be added at the committee's discretion to recognize a family's "extreme or emergency financial circumstances." (*For a full explanation of the Fall River point system, circle number 873 on the Reader Service Card.*)

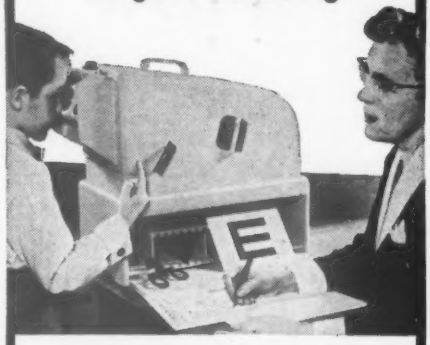
These ratings are evaluated carefully by the judging committee. To guard against any possible prejudice, the names of applicants and their schools are known only to the chairman. For the rest of the committee, applications are identified only by numbers until all final decisions have been reached.

There it is—the Fall River plan. By its very nature, it must be powered by laymen outside the educational system. Yet the schools can help. For example:

- Classroom collections will let students lead the community to individual membership.
- The teachers' association can lead local groups by making a contribution in its own name.
- Teachers and students can join the speakers bureau.
- Art classes can make posters.
- Homemaking classes can serve refreshments at membership rallies.
- The scholarships can be explained at junior and senior assemblies.
- English teachers can assign essays on the value of scholarships.
- School mimeograph and duplicating facilities can be made available.

The first step, of course, is to let your community know that the Fall River plan exists—that it works there—and that it can work in your community too. **End**

Good vision vital to good learning



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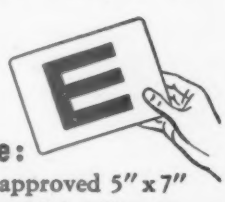

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How many custodians do you need?

Here's a straightforward method of controlling custodial cost that will save money and improve your custodians' morale.

By OTTO K. FERNALLD

Editor's Note: This is the first in a series of "how-to" articles covering school maintenance. This series is based on a remarkable service supplied by the office of Carl W. & R. T. Clark, A.I.A., Syracuse, N. Y., architects, for their clients. At the completion of each of their school building projects, they supply the district with a "Maintenance and Operations Manual." The manual not only covers all general aspects of proper maintenance but is individually tailored to the specific school involved. School Management feels particularly fortunate in being able to bring you this example of purposeful and practical research.

■ ■ ■In a well-run school district, when costs are properly allocated and budgeted, school maintenance eats up about 5% of the district's annual budget. Unfortunately, few districts know how to determine the true costs of this essential work, and they are thus unable to compare their practices with this nationally accepted figure.

But failure to properly cost-account maintenance has an even more important aspect than ability to make a comparison. Without it, a district can do little to reduce its costs—particularly in the area of custodial expense—and has no yardstick by which to evaluate whether to buy less-costly or more-costly materials when it builds or rebuilds a school.

Watch custodial costs

Naturally, the cost of maintenance will vary somewhat from district to district depending upon a number of variables. But one constant, labor costs, will almost always represent a major chunk of this 5% figure. For example, examine these figures from a well-operated school district in central New York: The annual budget was $616,000. Total maintenance costs were $29,500—somewhat under 5%. Of this figure, *custodial costs* were $19,600, but only about $2,000 was allocated to custodial supplies. In other words, custodial labor cost $17,500.

To put it another way, 90% of custodial costs were *labor itself.*

Obviously, even in a small district like this, custodial labor is a fruitful area for potential saving.

How many custodians are needed?

Many rule of thumb "yardsticks" are advanced in determining custodial requirements of a building. All of them state that adjustments must be made for local conditions and there is considerable variance in them. Some of these "yardsticks" are listed below:

1. **Square feet**—10,000 to 20,000 per custodian
2. **Rooms**—eight to 12 per custodian
3. **Teachers**—five to 14 per custodian
4. **Pupils**—125 to 349 per custodian

These yardsticks can be misleading. To assign one custodian three kindergarten rooms and nine elementary classrooms, and another custodian 12 secondary classrooms, would be assigning 12 rooms to each man. But it certainly would not be dividing the work load evenly. The custodian with the three kindergarten rooms would no doubt have room toilets, lavatory floors and wainscot around the water closets to be cleaned daily. He would likely have more dirt on the floors, especially, if the kindergarten tots had lunch in their rooms. It goes without saying that this kind of unequal distribution of work loads will cause grumbling and discontent, and lead to poor morale among the employees.

Realization of this fact has led to a new approach to building maintenance, one that is aimed at scientific evaluation and control of maintenance costs using "measured work techniques."

In SCHOOL MANAGEMENT (*"How to reduce maintenance costs," Feb. '58*) a "Standard Job Time List" was reported. It is repeated here (*see page 64*). Such a list is made up by using time study methods on maintenance tasks. For years industry has time-studied operations in their machining and assembly lines in order to use the labor supply in the most economical manner. This was, and is, an area where good planning can pay dividends. The same principles apply to good housekeeping in a school building.

How to measure time

The typical grade room (*Fig. I*) can be used to make a practical application of this time study list. But, in order to apply these times to any area, it is first necessary to break that area down into its various cleaning components. The cleaning time

for each component of work is then computed (not necessarily in the order in which the work is performed) and totaled to give the cleaning time for the area. Not every single component in the area may be found on the list but interpolated comparisons may be made by comparing similar operations. In addition, unusual jobs can be timed to establish fairly accurate computations.

A breakdown of the time required to clean the classroom shown will be found in Figure II.

After the time required to clean certain areas is determined, it is logical to assume that other identical areas would require the same cleaning time.

The next step is to determine what housekeeping standards are to be maintained and which tasks are to be done daily, weekly and/or once a month. For example, cleaning water closets and urinals, mopping the lavatory floors, and washing the wainscot around water closets and urinals, are daily tasks that, together with proper ventilation, promote cleanliness and health. The use of disinfectants to cover the odor caused by uncleanliness with another odor should never be tolerated.

Daily work load

Not all of the items shown in Figure II are to be handled daily, but an examination of this list will show that the following tasks *must* be performed each day: **E, F, H, I, O, P, R, S and T.**

When the times required to perform these tasks are added together, we find this classroom requires 30 minutes and 24 seconds of work per day. Depending upon the housekeeping standards you are going to strive for, this time can be extended.

Let's assume that there are six

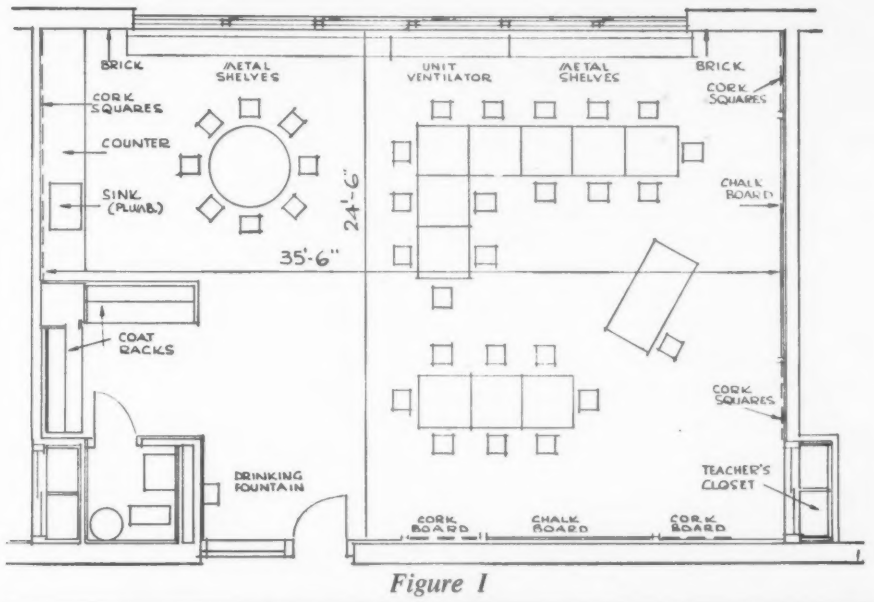

Figure I

Figure II

Breakdown of components in typical classroom with cleaning time computations

	Min.	Sec.
A. Teacher's desk	—	43
B. Pupil tables (11 @ 22 sec.)	4	2
Pupil chairs (31 @ 22 sec.)	11	22
C. Unit ventilators	2	24
D. Shelving	—	—
E. Asphalt tile floor (regular daily dust mop with yarn broom —heavily obstructed area—16 min per 1,000 sq. ft.)	14	—
F. Ceramic tile lavatory floor (wet mop daily with detergent and germicide solution to keep clean and odorless—25 sq. ft. @ 55 min. per 1,000 sq. ft.)	1	22
G. Teacher's chair	—	35
H. Counter (wipe top and sides)	3	32
I. Sink	2	—
J. Chalkboard (sometimes dusted by pupils, when custodian washes with clear water, sponge, and squeegee —30 sq. ft. per min.)	3	12
K. Toilet door (slab with small window)	—	40
L. Room door (slab with long window)	1	—
M. Cork display board (pupils maintain)	—	—
N. Coat racks (dusted when needed—compare to four slab doors)	1	40
O. Wastebasket (empty daily and wipe out occasionally)	—	15
P. Paper towel disposal (empty daily and wipe out occasionally)	—	15
Q. Paper towel dispenser (wipe)	—	7
(reload)	1	—
R. Water closet (clean daily)	2	—
S. Wash basin (clean daily)	2	—
T. Ceramic tile wainscot (wash daily with detergent and germicide)	5	—
U. Cork square wall covering (dusted periodically—50 sq. ft./min)	—	—
	—	—
TOTAL	57	9

ABOUT THE AUTHOR

Otto K. Fernalld has been a school board member for 10 years. Prior to becoming affiliated with Clark & Clark, he was in the field of unit cost accounting and wage incentives. Thus, his background makes him unusually well qualified to handle the problem of maintenance as it relates to personnel.

STANDARD JOB TIME LIST

This standard time list approximates average working times of skilled workers operating under average conditions. Refer to it as a guide, but not as a definite example of what you should be accomplishing.

FLOOR RATES	Time In Minutes Per 1,000 Sq. Ft.
Sweeping	
Unobstructed	9
Slightly Obst.	10
Obstructed	12
Heavily Obst.	16
Dust Mopping	
Unobstructed	7
Slightly Obst.	9
Obstructed	12
Heavily Obst.	16
Damp Mopping	
Unobstructed	16
Slightly Obst.	23
Obstructed	27
Heavily Obst.	32
Wet Mop and Rinse	
Unobstructive	35
Slightly Obst.	45
Obstructed	50
Heavily Obst.	55
Hand Scrub	
Unobstructed	240
Slightly Obst.	300
Obstructed	330
Heavily Obst.	360
Hand Scrub—Long Handle Brush	
Unobstructed	75
Slightly Obst.	105
Obstructed	120
Heavily Obst.	135
Machine Scrub—19" Machine	
Unobstructed	25
Slightly Obst.	35
Obstructed	40
Heavily Obst.	45
Machine Polish—19" Machine	
Unobstructed	15
Slightly Obst.	25
Obstructed	30
Heavily Obst.	35
Vacuum—Wet Pick-up	
Unobstructed	20
Slightly Obst.	27
Obstructed	31
Heavily Obst.	35
Vacuum—Dry Pick-up	
Unobstructed	14
Slightly Obst.	17
Obstructed	19
Heavily Obst.	23
Strip and Rewax	
Unobstructed	100
Slightly Obst.	120
Obstructed	140
Heavily Obst.	180
Combination Scrub and Wet Pick-up Automatic Machine	5,000 to 20,000 Sq. Ft. Per Hour

DUSTING	Time In Seconds
Ash Tray	15
Book Cases	
13" x 35" x 12"	22
36" x 30" x 8"	33
12" x 40" x 12"	216
42" x 24" x 11"	49
Cabinets	
36" x 77" x 18"	106
30" x 66" x 18"	42
Calculators	
Small	7
Large	9
Chairs	
Large	63
Medium	35
Steno	22
Cigarette Stand	25
Clock, Desk	8
Clock, Wall	20
Desks	
Large	48
Medium	43
Small	38
Desk Items, Misc.	3
Doors	
Without glass	25
With glass	40
Elevator Cabs (Inside)	196
Files	
4 drawer	22
5 drawer	27
Fire Extinguishers	16
In and Out Trays	8
Lamps and Lights	
Wall Fluorescent	8
Desk Lamp Fluorescent	18
Table Lamp with Shade	35
Floor Lamp with Shade	35
Partitions, Glass	50 Sq. Ft. Per Min.
Pencil Sharpener	15
Pictures and Photos	
3' x 5'	45
Medium	15
Small	15
Rack, Coat and Hat (6')	90
Radiators and Window Ledge *(124" x 15")*	45
Radiator (Flush With Wall) *40" x 30" x 6"*	21
Sand Urns	60
Spittoons	180
Tables	
Large	60
Medium	35
Small	22
Telephone	9
Typewriter (Covered)	7
Vending Machine	60
Venetian Blinds (Standard Size)	210
Waste Baskets	15

LAVATORY ITEMS	
Cleaning Commode *(With Partition)*	180
Door (Spot Wash)	50
Door Latch	10
Mirrors	
25" x 49"	20
60" x 21"	20
88" x 31"	40
Napkin Dispenser	13
Napkin Disposal	10
Paper Towel Dispenser	7
Paper Tower Disposal	10
Shelving	
20" Long	8
126" x 6"	60
Urinals—Complete	120
Wainscotting, *75-100 Ft. Long*	25
Wash Basin and Soap Dispenser *(Complete)*	120

identical rooms in one wing of a hypothetical building in which our typical classroom can be found. If we round off the cleaning time for one room to 31 minutes, six times that figure will be 186 minutes for just the classrooms.

But work in this wing does not end with the classrooms. In a six-room wing, there would be about 1,600 square feet of corridor to be swept with a yarn broom after the children had returned to their rooms from lunch . . . and again that night after the children had left the building. In addition, if we assume that there is a gymnasium next to this wing, and that it is a logical part of this area, it should be maintained by the same custodians handling the other cleanup. If there is a library, it too must be maintained. A glance at Figure III will show the additional tasks that should conceivably be handled by the custodian on a regular basis.

Figure III

Breakdown of additional tasks with cleaning time computations

	Min.	Sec.
AA. Corridor *(sweep 3,200 sq. ft. @ 9 min. per 1,000 sq. ft.)*	28	48
BB. Vestibule floor *(wet mop and rinse 200 sq. ft. @ 35 min. per 1,000 sq. ft.)*	7	—
CC. Gymnasium *(sweep 4,000 sq. ft. @ 9 min. per 1,000 sq. ft.)*	36	—
DD. Library room *(1,000 sq. ft. @ 16 min. per 1,000 sq. ft. of obstructed area)*	16	—
EE. Library tables *(dust 12 at 48 sec. each)*	9	36
FF. Library chairs *(dust 72 @ 22 sec.)*	26	24
GG. Gym toilets *(computed for six water closets, partitions, urinals, wainscot, washbasins and floor*	50	—
TOTAL	173	48
about 174 minutes plus about 186 min. on classrooms		

TOTAL about 360 minutes

In our hypothetical elementary school wing, we now have about 360

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CUSTODIANS CHECK LIST HEATING AND MECHANICAL SERVICES

Building _____ Date _____

Inspected By _____

ARE?	YES	NO	REMARKS
Doors and trim clean			
Fire doors in proper order			
Windows reasonably clean			
Windows in working order			
Floors treated and clean			
Walls and ceiling clean			
Light fixtures and bulbs O.K.			

Various types of equipment clean and in proper working order and lubricated if needed.			
Boilers			
Stokers			
Vacuum return pumps			
Boiler feed pumps			
Ventilating fans & motors			
Air compressor			
Vacuum cleaning equipment			
Sump pumps			
Effluent pumps			
Valves of all types			
Steam traps			
Grease interceptors			

Various meters and instruments clean and in proper working order			
Electric light			
Electric power			
Gas			
Water			
Condensation			
Steam flow			
CO_2 recorder			
Steam pressure gauge			
Thermometers			
Water gauges			

Proper records kept of meter and instrument readings			
Fire fighting equipment in proper working condition			
Repair tools neat and in serviceable condition			

minutes needed to perform all the daily operations shown in Exhibit II and III. In addition, it is necessary to add about 10% or 36 minutes for "fatigue." Also, it takes about 20 minutes a day to prepare solutions, get tools out, and replace them at the end of the shift. It must also be remembered that a shift will rarely pass without some little unexpected job to be done. It is best to plan on them and to allow 10 minutes for such an occurrence. Last but not least, figure on 20 minutes for two 10 minute rest or smoking breaks during the shift.

We now have a total of about 446 minutes of time scheduled for a typical day. If you figure your work day to be eight hours (or 480 minutes) there are still 34 minutes unscheduled which can be allocated to special work or items that are not on the daily schedule.

Setting up the work schedule

At the outset, it is important to recognize that the custodian must have an opportunity to work with the administrator in setting up his areas of responsibility and his work load. When more than one custodian is involved, it is critical to make an honest effort to equalize work among the several men.

Even when a detailed breakdown is made, however, it is not easy to set-up a good work schedule. Some jobs, such as cleaning the classrooms, have to be done when the children are not in them. That means that room cleaning must be done before schools open in the morning and after the children have gone home at the end of the school day. Many schools have night custodians who start work at the close of the school. Others find that it works out better to have their day man do the dust-mopping of the floors and the night man assume responsibility for toilet rooms, lavatories, etc.

Making a custodian responsible for a *specific area,* however, has several advantages:

1. With a variety of tasks to accomplish, he is relieved of monotony.

2. With the entire responsibility for keeping an area neat and clean, he shows more personal interest.

3. With diversified work, he

can alternate the heavier and lighter tasks.

4. Any sub-standard work in a specific area can be pinpointed to the person responsible.

5. Important operations are not so likely to be overlooked.

In setting up a schedule, a saving in time, and therefore in money, can be realized by the establishment of work patterns that eliminate all the waste motion possible. For example, eliminate the need to travel back and forth to the supply room. Have the cleaning materials and tools on a cart that can go with the custodian from room to room. Try out many variations of work patterns until one is found that is most efficient, the one that permits a good job to be done in the least time.

Use of check lists

Many administrators and building supervisors use some type of "check list" that will give them a reference record for periodic inspections. Some suggested forms cover areas such as heating and mechanical services, etc. (*see examples, this page and opposite*). These "check-off" lists will be most effective if tailor-made for each particular building involved. On hit or miss inspection tours some things are liable to be missed. By using a check list much less is over looked.

Scheduling repair jobs

During the school year the need for certain repair jobs will become evident. Some will be of an emergency nature and require immediate attention. Others can be delayed until the summer vacation. A schedule may be used (*Fig. V*) on which those items that are to be delayed may be noted as they arise. When school closes for the summer vacation this schedule can be given to the custodian for attention. As the custodian completes each repair job he checks the proper box on the schedule. When the repairs have all been completed the list is turned in to the office for filing. This procedure assures that no repairs are overlooked and provides a reference record of when they were made.

The "Specific Schedule for a Room" (*Fig. VI*) is used as a check list in the summer cleaning program for each room.

The "General Schedule for Spe-

CUSTODIANS CHECK LIST — **WALKS and ENTRANCES**

Building_____ Date_____

Inspected By_____

ARE? or IS?	YES	NO	REMARKS
Steps clean and safe			
Walks clean and unbroken			
Gutters clean—Drains open			
Outside hardware clean			
Outside glass clean			
Outside light fixtures clean			
Outside light fixtures in proper working order			
Outside of doors clean			
INTERIOR			
Door locks and panic bolts in proper working order			
Doors close tightly			
Floor clean			
Floor mat (if any) clean			
Lights working properly			
Heating units working properly			
Entrance free of movable objects			

CUSTODIANS CHECK LIST — **ROOMS**

Room # _____ Date_____

Inspected By _____

ARE? or IS?	YES	NO	REMARKS
Floors clean-properly treated			
Walls and ceiling clean			
Interior trim clean			
Doors and hardware clean			
Windows clean (inside and out)			
Window shades in good order			
Light bulbs serviceable			
Light fixtures clean			
Furniture clean—unbroken			
Tack boards clean			
Wastebaskets emptied daily			
Pencil sharpener clean			
Clock properly regulated			
Room properly ventilated			
Unit ventilator filters clean			
Thermostats properly set			
Proper temperature maintained			

cific Area or Entire Plant" (*Fig. VII*) is used in the summer cleaning program as a check list for large areas such as an entire wing of the building. Note that the room schedule (*Fig. VI*) is listed as item #6 on this schedule.

In most instances, custodians will cooperate fully to find ways and means of reducing the labor and time required to perform their cleaning and maintenance tasks. Very few people want to continue to do a job the hard way if they can be shown an easier, more efficient method.

School authorities have discovered that, with the cooperation of every single person having anything to do with labor costs, substantial savings have resulted. When a program meets high standards, and when proper accounting procedures are used to prove its economy, it is natural to assume that some of the money saved could be passed on to the people who are putting forth the effort necessary to such a program in the form of wage increases. Cooperative effort and the sharing of the profits made through such cooperative effort contribute toward efficiency. In addition, they contribute to a more economical operation. **End**

SUMMER WORK IS SCHEDULED DURING YEAR ON THESE FORMS

FIG V

REPAIRS TO BE MADE
SUMMER VACATION 19—

LOCATION	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	REMARKS

FIG VI

SPECIFIC SCHEDULE
FOR A ROOM

ROOM NO.	Remove moveable equipment	Spread drop cloths	Brush or vacuum ceiling	Brush or vacuum side walls	Wash walls if necessary	Wash woodwork	Use furniture polish–natural wood	Wash chalkboards	Clean light fixtures	Wash furniture left in room	Vacuum unit ventilators	Clean and rehang curtains, draperies	Rehang pictures, etc.	Scrub and rinse floor	Wash baseboards	Seal and wax floor (per type)	Wash and return furniture	REMARKS

FIG VII

GENERAL SCHEDULE
FOR SPECIFIC AREA
OR ENTIRE PLANT

AREA OR WING #	1. Gather–destroy–waste material	2. Sweep all floors	3. Clean heating plant for lay up	4. Clean plumbing fixtures–coat with powder	5. See check list for summer repairs	6. Clean rooms–per schedule	7. Clean corridors	8. Clean stairways	9. Wash windows	10. Prepare heating plant for use-test	11. Wash powder off plumbing fixtures. Fill paper holders-soap containers	12. Dust furniture–just before school opens	REMARKS

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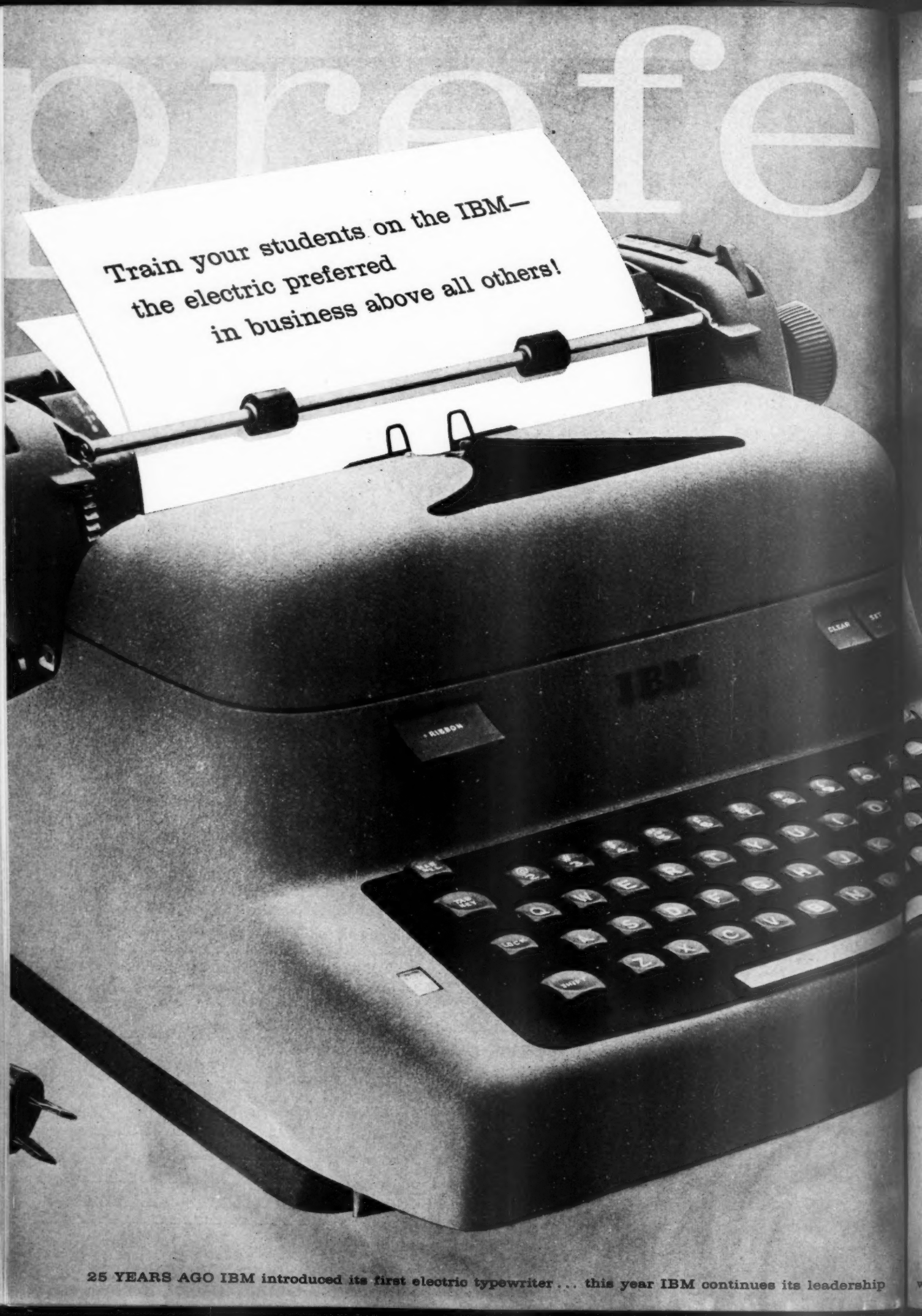

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an S/M book review

How to identify your gifted children

■ ■ ■ If your school district is contemplating something special for gifted pupils, you'll find valuable help in a fine volume recently published by the National Council for the Social Studies.*

Unlike much of the educational literature published today, this book is short on theory and long on practical programming. Since it was prepared by people interested primarily in the area of social studies, it emphasizes these subjects. But this in no way diminishes its value as a primary guide to planning education for the academically talented.

As the editor points out, too many schools today limit their special programs for the gifted to bright pupils with an exceptionally high IQ—often to those in the top one, two or three percent of the child population. This doesn't dig deep enough for a democratic society. Actually, the top 15 to 20% of our children constitute the real reservoir of talent from which will come leadership in every area of human affairs. Whenever we exclude any part of this group from the special opportunities they require for full development, we are wasting our resources.

With permission of the publisher, we present below one typical section of a chapter from the book—one that seems to be extremely pertinent at this time. It was written by Dr. Albert I. Oliver, president of the Association of Education of Gifted Children.

Identifying the academically gifted child

The problem of identifying rapid learners is complicated by the fact that they fall into different types which school people sometimes fail to analyze properly. *Only the first type—those who are mentally superior and achieving up to ability—are easy to recognize.* At least five other types should be looked for when planning identification procedures. These types may be described as:

1. *Mentally superior but doing inferior work, since asked to work at tasks offering too little challenge*

2. *Mentally superior but limited by emotional problems which interfere with learning tasks and social adjustment*

3. *Mentally superior but limited by inferior educational background*

4. *Mentally superior but limited by a too narrow range of interests or by attitudes of anti-intellectualism on the part of classmates*

5. *Mentally superior but achieving poorly because of poor reading ability. (The reading difficulty might be symptomatic of underlying emotional disturbance.)*

The practice of looking at achievement alone to find the gifted will overlook many who have *potential* but who, because of situations like those outlined, do not *perform* at above-average levels. . . .

Ground rules or assumptions

Before proceeding to a consideration of various identification techniques, it is desirable to establish some "ground rules" or assumptions:

1. *All men are* not *created equal in regard to ability. Neither do they have equal environments by which their potential abilities can be strengthened or directed. For many children, the environment tends to stunt their abilities.*

2. *Various school systems may decide on different criteria by which to select the academically talented. When IQ is the sole or the chief criterion, the cutoff point must be carefully considered. For reasons of economy some programs for the gifted have been limited to the top one or two percent of the school population. Other programs have embraced the top 10, 20, or even 50% of the population of a given school.*

3. *Early identification is desirable. Potential ability does not flower unless placed in a favorable environ-*

* THE SOCIAL EDUCATION OF THE ACADEMICALLY TALENTED, Ruth Wood Gavain, editor. Published by National Council for the Social Studies, 1201—16th St., N.W., Washington 6, D. C., 1958. 101 pp. $2.00.

An excerpt from a book that concerns itself with this difficult problem

ment. The intellectually superior pupil who is not recognized may become bored with school, may fail to develop adequate methods of study, and may coast along using only part of his ability until he is old enough to go to work. Among the upper third of the school population ranked by intelligence, one half do not go to college. If more of these bright children are to have a chance to obtain a higher education, they and their parents need to begin making plans for it at least by the end of the elementary school years. The school has a duty to each academically talented child to identify him at an early age and to hold before him constantly the importance of getting a sound preparation for college. Unless he and his parents realize he has superior intellectual ability and realize that scholarships and loan funds can be obtained, if needed, to help pay for higher education, the talented pupil may fail to prepare for college. In fact, he may not even complete high school.

4. *Identification should be a continuing process, since some children are "late bloomers." A careful screening should take place no later than the eighth-grade level, since the eighth-grader usually has to decide on his program for the remaining years of high school. In a senior high school which offers honors classes or special advanced courses, there will be need for further screening at later points.*

5. *The academically talented have certain significant characteristics including the following: a. a tendency to see relationships quickly, b. the ability to handle abstractions readily, c. a high level of verbalization, d. a tendency to be highly critical, e. a tendency to reflect upon the things they learn, to seek the "whys." The big problem is to see that these characteristics turn out to be assets rather than liabilities. A ground rule is to accept the principle that potential does not automatically mean strength of personality.*

Some identification procedures

In attempting to locate more assuredly his pupils with rapid learning potential, the teacher may rely

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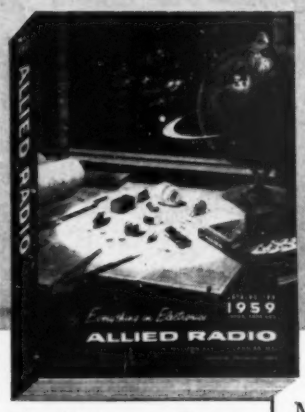

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upon personal judgment—his own, that of other teachers, of parents, of pupils themselves. Usually, stress is placed upon more impersonal procedures—tests and inventories. Probably the best plan is a blend of the two, with the realization that both personal judgment and test instruments can help us to describe and to understand pupils as well as to single out the most able. . . .

Intelligence tests

One of the commonest procedures is to administer and analyze standardized tests, usually of a group nature. These tests provide data from which the future behavior of an individual can usually be roughly predicted. However, most group intelligence tests fail to discriminate effectively at the higher levels, since individuals of very superior ability tend to reach the ceiling set in the test. A high score may therefore fail to provide an accurate IQ, but it certainly advises that you have an above-average pupil. When a parent, teacher, or counselor believes that the group test score does not reflect the true ability, an individual test such as the Stanford-Binet or the Wechsler-Bellevue should be given. An individual test may also be used when the school administration wishes to double-check on the selection of those to be considered for special grouping.

The basic formula for deriving a student's IQ is to divide the mental age as described in a special test by the chronological age as determined from date of birth. A discerning social studies teacher, however, will put stress on considering how old the student is in his thinking. That is, a six-year-old who can think at the level of most eight-year-olds would have an IQ of 133, and this is the same IQ rating that would be given to a 15-year-old with a mental age of 20. The scope and the maturation of the two mental ages are obviously quite different, and this relationship should be carefully studied by the teacher as he plans his instructional program.

From the sociologist's point of view, it is important to realize that test performance is the result of various influences—native ability, cultural background, educational opportunity, and respondent's attitude at the time of taking the test. Rather than engage in an academic argument as to what degree certain tests are "culture free," attention should be paid to the predictive possibilities of the evidence. It has been found that test scores and school marks taken together predict more accurately than either factor taken separately.

Achievement tests

Since different school systems and different teachers have unlike standards and procedures in marking, it is advantageous to get a more comparable look at school success by utilizing standardized achievement tests. For example, results of standard reading tests often point to potential rapid learners. It is a fairly common but arbitrary practice to expect superior academic performance when a boy or girl is found able to read at least two years ahead of his grade level. Since success as a member of a challenging social studies program is dependent upon skill in reading, this factor should be carefully considered.

The teacher should also look at achievement scores in the usual subject fields of social studies, mathe-

matics, science, language, art, and mechanical skills, because these give some indication as to how well the individual has done so far with his environment. Some schools have found that a special test battery, such as the Iowa Tests of Educational Development, is useful in showing how much a pupil has been able to gain from all his learning experiences. These tests concentrate on educational development, which, in the continuum of measurement, lies between "pure" intellect on the one hand and specific subject matter achievements on the other. Although the testing field as yet is not able to indicate with assurance the individual's potentiality in critical thinking, in original thinking, and in social leadership, we can find those individuals whose scores put them in the upper ranges from which creativity and leadership are most likely to emerge.

Cumulative records

An underlying thesis of this chapter is that clues of identification must be sought from many sources. The cumulative record folder should be studied to give a panorama of past performance. Wherever a school has devised an effective system of noting test scores, marks, anecdotal records, special awards, and the like, the classroom teacher may gain a new perspective on the pupil as he appears in class today. The investigator may note erratic performances; he may observe final achievement results not in harmony with apparent potential; he may find evidence that, as a nonconformer or as one bored with a plodding program, a bright youngster has aroused teacher disfavor (*see the section on teacher judgment pages 73 & 74).*

There also may be results from several intelligence tests. In one child's record there were IQ's of 105, 117, 125. Which one is most likely to be correct? Since factors such as test administration, physical conditions under which a test is taken, and the individual's attitude at the time of the test affect results, it should be recognized why scores may differ. In the case above, the chances are that the score of 125 is more representative of the pupil's mental ability than the score of 105. That is, one is more likely to underscore than overscore. At any rate, inconsistent test scores should challenge today's teacher to seek further explanation and to be alert for other indications that here may be a rapid learner.

Sociometrics

All children desire to be liked and want to feel that they are part of a group. Sometimes teachers, preoccupied with concern for intellectual achievement, are slow to recognize that some children feel rejected and unwanted by their classmates. Sociometrics can be used to advantage to locate social deficiencies as well as to single out the status leaders. The information obtained from these tests will guide the teacher in **1.** *helping every child to find personal security, and* **2.** *helping him develop the ability to function better within a group.*

Which children are liked by their classmates? Which ones are disliked? Does there seem to be any relationship between the acceptance-rejection pattern and mental superiority? That is, has the very fact of possessing high intellectual ability served to hinder social acceptance? A teacher should experiment with devices

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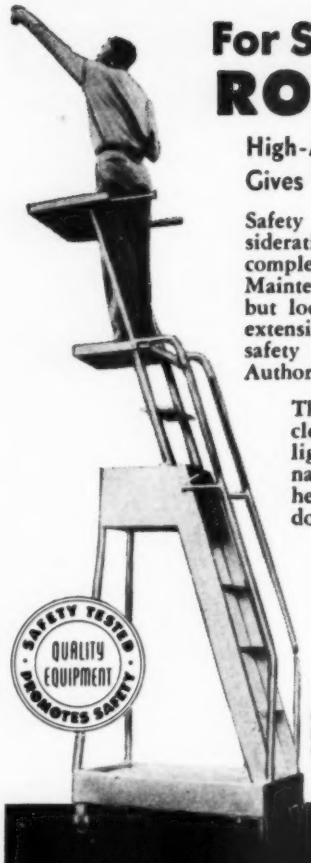

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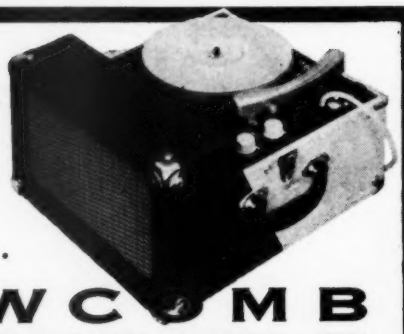

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that will reveal the child's peer status. A typical sociometric test asks pupils to respond (*in writing for the teacher's confidential use*) to questions such as:

1. *With which three children do you get along best and have the least trouble in the classroom and on the playground?*

2. *Which three children would you like to have sit next to you?*

3. *Which three choose you most often to do things with them?*

By studying the individual replies and by plotting them on a sociogram, a teacher can discover which pupils are generally liked, which ones accept each other, and which are isolates, that is, those who may not be chosen by anyone else in the class. Every isolate is a child who urgently needs help. If the isolate is a pupil believed to be gifted, the teacher should try to find out whether the fact of having superior "mind-power" is bringing about the social isolation. . . .

Use of films and pictures

A fairly recent device of promise is based on the use of films. Paul Witty reports on some experiments whereby certain films, which had been used to motivate pupil interest in creative expression, could also serve to locate some gifted children. Groups of pupils viewed *The Hunter and the Forest* (*distributed by Encyclopaedia Britannica Films*) and then wrote down their reactions. The replies were judged according to:

1. *The expression of genuine feeling*

2. *Sensitivity to the value of particular words, phrases, and larger language units in expressing feelings*

3. *Response to the film-maker's intent and to the materials and symbols presented*

4. *Use of correct and appropriate English.*

When judged against these criteria, pupils can be found who have unusual imagination, insight, and ability to express themselves in words. The technique can be used in typical classrooms to bring about a more general identification of children **1.** who will be able to write well, and **2.** who may have more than average *empathy*, or ability to identify themselves with others. . . .

Autobiographies

Some junior high schools effectively encourage self-revelation by having pupils write autobiographies. Once the go-ahead atmosphere is established so that the pupils feel freedom to be themselves, these autobiographies often add a great deal of background not found in the formal records. The gifted are astute enough to know what the teacher will approve in conventional written assignments and class discussion; thus, in usual class situations they operate under the mask of conformity. A personal history may reveal to the teacher for the first time what Mary *did*, what she really *thought about*.

Pupils may be asked to write autobiographies in the upper elementary grades and also in the senior high. In some schools these papers are placed in the cumulative record folder. The discovery of a student's out-of-school life gives clues to his talents. Do his hobbies reveal intellectual activity? Does he exhibit strong,

innate curiosity? Does he read extensively, deeply, and with a thirst for knowledge? If you can say Yes to these and similar questions, you are doubtless on the trail of a gifted student.

Clues from parents

Teachers can get help from parents in identifying those young people with superior ability. Sometimes pupils, adhering to the school routine, do not display the ingenuity or the creativity which they may evidence away from the classroom environment. Cases have been found where a boy will have some intellectual hobby, such as astronomy or electronics, which is entirely unknown to the school. Also, parents are in a position to observe early tendencies of genuine curiosity, of liking for intellectual pursuits, of compassion for other human beings. The practical caution is that fathers and mothers, emotionally tied to their children, may either overrate or underrate their offspring. Identification and education of rapid learners is a cooperative undertaking in which both the home and the school should pool their information. . . .

Teacher judgment

Teachers are in an excellent position to observe learners, to note development. If they are asked, without previous preparation, to list their "gifted," they will miss some and will include others who really do not belong. A quick overview of some of the reasons for these errors may suggest ways to improve the effectiveness of teachers as identifiers. Errors in identification may result *because*:

1. *On the assumption of the great importance of environmental factors, it is easy to over-rate those pupils coming from "good" homes. Conversely, there is the feeling that a group coming largely from unfavored homes contains few bright pupils. Furthermore, the teacher may interpret lower-class culture traits as evidence of a lack of academic ability.*

2. *Teachers, being human beings, tend to like pupils who follow school directions readily. A pleasing personality, a polite manner, may bring to a pupil a subtle upgrading.*

3. *A gifted person, on the other hand, tends to be independent in thought and in action. He may ask embarrassing questions. He may prefer to use his own ways to do things. Such non-conforming actions may annoy the teacher. The resulting irritation can result in downgrading.*

4. *Although the academically talented pupil moves forward in his development, like others he may exhibit erratic performance. The teacher who observes a pupil during a "low" period may be misled as to the true potential.*

In spite of these possible limitations of teacher judgment, it will be found that working out a systematic plan of observation will increase the accuracy of identification. **End**

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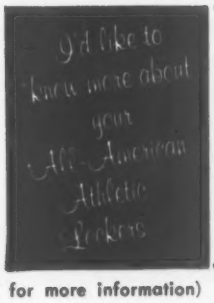

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EASY-TITE
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Bond program

continued from page 42

the first five weeks of the campaign, and one story daily, during the concluding week, were planted in the two highly-cooperative local newspapers. The interview technique was used almost exclusively to carry supporting statements by prominent citizens and leaders in the community. These stories were filed with the newspapers well in advance of publication to insure better position as well as to allow time for editorial collaboration and rewrite. The campaign slogan was run across the bottom of both front pages during the last week of the drive.

Newspaper advertising—Many regular advertisers generously volunteered portions of their paid space to imprint the campaign slogan as well as brief supporting statements. Several merchants and private citizens bought advertising space outright and donated it to the school cause. The bulk of the advertising message appeared during the final week of the campaign.

Speakers—Leading citizens were enlisted to address social, fraternal, action and philanthropic organizations on the merits of the referendum. These men and women played an active role in distributing the brochure and drumming-up civic support. Speaking engagements were scheduled for the entire length of the campaign, with some increase in tempo during concluding days.

Radio—Daily spot announcements and some "public service" time were donated by the local station to transmit the school story. Once again, the interview was turned to good effect with vigorous, convincing appeals by average citizens with whom the listeners could identify themselves. Supplementary feature material was made available to newscasters for reportorial use.

Displays—Bus cards, window and counter displays, auto stickers and posters for bulletin boards were designed by the school's art department for the municipal transport service, stores and business concerns, and private citizens. Again, the final phases of the campaign saw an enormous step-up in the distribution of these aids, as well as in the overall pace of the drive.

Get-out-the-vote team—A wind-up effort was made by campaign task groups on balloting day to urge all eligible voters to the polls. This was done by word-of-mouth, by phone, and by means of mimeographed reminders handed out on the preceding day.

Glens Falls' coordinated school bond campaign is fairly representative of the type that can be set up by the moderate to large-size community with several organs of mass communication at its disposal.

Campaign techniques

Although these two examples of how to pre-plan and how to follow-through are valid for a great many similarly-constituted communities, other approaches may be more fitting for the locality with unique problems.

By virtue of its relatively small size, Hasbrouck Heights, N. J., was able to conduct a successful bond campaign for a new high school exclusively through the personal activities of a 300-man citizens' committee. The group hefted the entire burden of opinion-forming on its own shoulders, assigning its members to contact friends and neighbors with a personal plea for support at the polls. Enough individual backing was won by the drive's end to swing the vote and to prove the efficacy of this technique.

Florida's Pinellas County school district, with sizable area and low population density, posed a communications problem. To solve it, a finely-geared organization with an administrative chain-of-command was set up to canvass the territory. The accent was on the spectacular with attention-getters like a barbershop-quartet caravan, sound truck and airplanes.

The county's get-out-the-vote committee appointed PTA workers to call on a selected list of voters in all precincts. As a final measure, 1,000 drivers and vehicles were "commandeered" to provide transportation for voters who had none. Helpers accompanying the driver remained, if needed, to baby-sit or otherwise stand-in for the voter.

Hobbs, N. M., has fully met recurrent needs for school expansion without recourse to campaigning. The astounding fact is that resistance to school expenditures by this community is virtually nil. And credit goes fully to a standing com-

mittee known as the lay advisory committee to the board of education. Throughout the year, this permanent group maintains a steady pipeline of information to the man on the street via a weekly "Know your schools" news feature. It also sponsors a periodically-issued school report and actively participates in any community group discussions and radio programs that may have even a remote connection with school matters.

Campaigns spell success

The community is thus continuously apprised of the changing state of school affairs. Opinion-molding is a slow but inexorable process and the public is thoroughly conditioned and prepared for referendum requests which regularly have been proposed. Little or no spot campaigning has been necessary. And what are the results of this particular campaign method? Eight successive school bond issue passages, in as many years, speak for the effectiveness of Hobbs continuous-reminder technique.

A formidable undercurrent of hostility was countered by the Ingleside, Ill., school board by publicity and more publicity. On a shoestring budget, the town's citizens' committee was forced to consign the lion's share of its activities to two local newspapers. During the six weeks of a bond campaign, a flood of newsworthy editorial and feature material was submitted to these papers in an attempt to win and hold the public ear. It worked.

Articles appeared which repeatedly presented arguments favoring the school board's proposal. Stories were planted on these and related subjects:

- Present school shortcomings, and the school board's proposed remedy.
- Economy aspects of the new plan.
- A projection of community growth, and the urgency of immediate action.
- Observations concerning overcrowding, made by the PTA president.
- Religious leaders' praise of proposed new construction.
- Announcements on scheduled film features and talks on school improvement.
- General information, in a front page story, on the day before the actual polling.

Campaigns must conform to the circumstances under which they are to be conducted. And the final determinants of the type of campaign that is most suitable to the situation, usually are the size, distribution and composition of the community. Minneapolis and Pinellas County were served well with the kind of massive organization and extensive campaign coverage that would be superfluous for the considerably more compact and accessible communities of Hasbrouck Heights and Hobbs. The "selling" process was ever-present, but the "sales pitch" differed.

These communities have also demonstrated by their success that a school bond campaign, when properly put over, settles more than immediate construction goals. In a way it favorably "sensitizes" the public to accept future expenditures when school authorities must again appeal for new funds. The right kind of campaign—when building good schools for today—builds good will for tomorrow. **End**

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Hiring teachers

continued from page 32

periods—and invite these people to come in. A letter goes out which says, in effect, "Your papers have just been reviewed by a committee of principals and they are interested in the possibility of your joining us next year. Would you like to come in and talk about it?" We also get direct applications. For example, when we write to Harvard and say we are going to need about four science teachers next year, they let their people know. Then the people contact us.

Q Do you ever raid a school district around you when you know it has a particularly good teacher in a subject area where you have a vacancy?

RICHTER: Yes, if you mean do we go after good people wherever they are. We don't want to wait to see what the tide washes in. What we want to do is to find out where there are good people and then try to stimulate them, somehow, to move here.

Q. *Doesn't this bring you into conflict with colleagues in adjacent districts?*

RICHTER: Occasionally, but they do it to us. This is an accepted thing and good for teachers and therefore good for education generally. For example, a couple of years ago I was riding in an airplane with a big-city superintendent. I told him we had just lost our high school principal—he had died. I said, "Where is the best high school principal in America?" He said, "We have him." And I asked would he mind if we talked to him. He said we could talk to him, but he knew we would be wasting our time. Well, we got him. He wanted to live in this part of the country, and we gave him a little more money.

Q. *Let's take a different example. Let's say the district right next to you has an outstanding math program under the leadership of a person you'd like to get. Would you go in and try to take that person away?*

RICHTER: No. But we would call the superintendent of schools and say we were looking for a top-flight person in mathematics. We would

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NEWTON PUBLIC SCHOOLS' REPORT OF INTERVIEW

page 1

Candidate .....Date of Birth.....
College .....Degree.....Year.....
Graduate School.....Degree.....Year.....
Place of Student
Teaching.....Grade and/or Subject
School
.....Grade and/or Subject
School
.....Grade and/or Subject
School
Present Position.....
Grade and Subject School Place
Position Preferred.....
1st choice 2nd choice 3rd choice
Interviewed by.....
Date .....
Series.....

Do Not Write Below This Line

PROFILE OF PERSONAL AND SOCIAL TRAITS

12
11
10
9
8
7
6
5
4
3
2
1

Appearance
Voice
Correctness of speech
Ability to present ideas
Alertness
Emotional Stability
Self Confidence
Friendliness
Enthusiasm
Professional Awareness
Suitability for Teaching

page 2

INSTRUCTIONS: *This interview is important because it provides an opportunity to appraise the candidate's personal and social traits, to clarify information submitted by the candidate in his application, and to supply him with information concerning the Newton Schools. However, the interview is only one of several sources of information for assessing the qualities essential to success as a teacher. The student teaching record, references, and classroom visitation are more valid sources of information for predicting teaching success. The checklist below acknowledges the limitations of the interview as a device for predicting teaching performance and stresses factors relating to personal and social competence.*

Ask yourself how this applicant compares with others who have had similar length of experience. Consider whether his voice, appearance, etc., would be liabilities or assets. Rate him by making a check (✓) at that point on each scale where, in your judgment, the applicant stands. Rate the following traits by checking the appropriate point on the scale which follows each question:

1. APPEARANCE. What sort of first impression does he make? Does he look like a healthy and energetic person? Has he bodily or facial characteristics which might seriously hamper him? Is he well-groomed or slovenly? Attractive or unattractive in appearance?

Creates unfavorable impression—unprepossessing	*Acceptable*	*Creates a favorable impression*	*Creates a highly favorable impression*

Comment:

2. VOICE. Is the applicant's voice irritating or pleasant? Can you easily hear what he says? Does he mumble or talk with an accent which offends or baffles the listener? Is his speech clear and distinct, his voice so well-modulated that it is a valuable asset?

Irritating or indistinct	*Understandable but uninteresting*	*Definitely pleasant or distinct*	*Exceptionally clear and pleasing*

Comment:

have no qualms about telling him that we were interested in his teacher. If he said it would break the back of his school system, we'd stand off. Otherwise, we'd start overtures.

Q *Do you ever use dollars as a direct incentive? Would you "get around" your salary schedule to get a particularly good person?*

RICHTER: Never! That would solve one problem and create 733 others. In Newton, we have 734 teachers and we have to keep faith with all of them. After we hire a person, we can usually advance him faster than his peers if he's better than his peers through our policy of recognizing teachers rendering notable services.

Q. *What about male teachers? Do you try to get any percentage of men, for example?*

RICHTER: We try to get good men. This is a bi-sexual society but in their early years our kids run into women all the time. We don't try to get any particular percentage. You can't. Good men are scarcer to get than good women. Incidentally, that is why we pay more for men than for women. When butter is scarce, you pay more for butter.

Q. *Isn't that illegal in some states?*

RICHTER: Yes. But that doesn't recognize the law of supply and demand. We don't pay women less, we pay men more. At Newton, we want to get more male teachers in the elementary schools. But so often you run into the problem of a man who is obviously not as high caliber as a woman you might get. This is very dangerous. The more average he is, the more likely you are to be stuck with him. He's not going to leave your school system and, if he teaches fifth grade, he's going to be sitting in that fifth grade for the rest of his life. An old man shouldn't be in the fifth grade.

Q. *What is your salary differential for men?*

RICHTER: $400 at the maximum and $200 on the schedule. Men have one other financial advantage. At Newton, we give them credit for being in

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page 3

3. CORRECTNESS OF SPEECH. Does he speak grammatically correct English or does he make frequent grammatical errors? Is his choice of words accurate?

Frequent grammatical errors	*Occasional grammatical errors*	*Free of grammatical errors*	*Exceptional choice of words*

Comment:

4. ABILITY TO PRESENT IDEAS. Does he speak logically and convincingly? Or does he tend to be vague, confused, or illogical?

Confused and unorganized	*Usually gets his ideas across*	*Shows ability in expressing himself*	*Shows superior ability in expressing himself*

Comment:

5. ALERTNESS. How readily does he grasp the meaning of a question? Is he slow to comprehend obvious points? Does he understand quickly, even though the idea is new, involved or difficult?

Slow in grasping the obvious. Often misunderstands	*Slow to understand subtle points. Requires explanation*	*Nearly always grasps intent of interviewer's questions*	*Notably alert and keen*

Comment:

6. EMOTIONAL STABILITY. How well poised is he? Does he seem touchy, sensitive to criticism, easily upset? Is he easily irritated? Is he impatient?

Occasionally impatient, irritated or over sensitive	*Well-poised much of the time*	*Exhibits better than average self-control*	*Shows exceptional poise, calmness, and good humor*

Comment:

7. SELF-CONFIDENCE. Does he seem to be uncertain of himself, hesitant, lacking in assurance? Is he self-confident and assured?

Timid, hesitant	*Appears to be somewhat self-conscious*	*Moderately confident of himself*	*Shows good self-assurance*

Comment:

page 4

8. FRIENDLINESS. Is he a friendly, likeable person? Will his colleagues and students be drawn to him? Is he retiring or unfriendly?

Does not seem very friendly	*Friendly, likeable*	*Very friendly and likeable*	*Outgoing—meets people exceptionally well*

Comment:

9. ENTHUSIASM FOR TEACHING. Has he sought experiences with children other than practice teaching? Does he appear to be happy with his choice of profession? Does he talk about children with genuine warmth?

Little enthusiasm	*Average enthusiasm*	*Enthusiastic*	*Very enthusiastic*

Comment:

10. PROFESSIONAL AWARENESS. Is he aware of professional developments? Has he read current educational literature? Is he aware of the controversies in public education? Does he have knowledge of the different philosophies of education?

Little awareness	*Superficial knowledge*	*Genuine interest and awareness*	*Unusually interested and informed*

Comment:

SUITABILITY OF TOTAL PERSONALITY CHARACTERISTICS FOR TEACHING

It is assumed that candidates who are placed in the top three categories will be investigated more thoroughly through references, transcripts, and visits to ascertain professional fitness for teaching.

Personality characteristics unsuited to teaching	*No marked personality deficiencies but doubt success in teaching*	*Personality characteristics suited to teaching*	*Personality characteristics exceptionally well suited to teaching*

Comments:

the armed services by treating that period as if they had been teaching. That means they start off a little better. Women who served in the armed forces are credited equally.

Q *In general, what are your basic criteria for experienced or inexperienced teachers? What are you looking for?*

RICHTER: There are four basic ingredients to look for in teachers that have nothing to do with their education. First, raw intelligence—is she bright? You can usually tell by her transcript or go back to her high school and get her IQ. The second thing is good mental and physical health. Is she optimistic, buoyant, and an outgoing person? How permissive is she, how approachable? The third thing is personality. Is she a leader, does she dress well, is she sensitive? The last I call "missionary zeal." Does she really want to do this job or is it something that is holding her over until she meets her man? Does she believe in public education? This last one is tough to determine. You can't ask the obvious questions. If you ask, "Why do you want to teach?," chances are you'll get the Sunday school answer, "Because I love children." The better question is, "How have you identified yourself with young people outside of teaching?" The girl or the man who has been working with young people either in church, or in a summer camp, probably has missionary zeal.

Q. *Do you try to establish these four points by questioning?*

RICHTER: Sometimes. Take mental health. A psychiatrist gave me a very simple question to ask. He said, "Ask them how their health is." He said if they talked more than 30 seconds about their health, he would want to know more about them. He would be suspicious. When it comes to personality, a person's acceptability by his peers is a pretty good gauge. Was he or she president of her class? Do they do unusual things, like fly an airplane? Here's an actual example. A couple of years ago, we had a girl apply who had driven up the Alcan Highway to Alaska with a girl friend. They slept outdoors all of the way, with guns under their pillows. Well, a girl who does that sort of thing has something that most girls don't have. She has had the kind of experience that will make her exciting to kids and young children. She'll get acceptance fast with children.

Q. *What about educational background? Do you prefer graduates of liberal arts colleges to graduates of teachers' colleges?*

RICHTER: It's a fallacy that the teachers' college does not give a liberal education. I never went to a teachers' college, but I suppose it's possibly true that you don't get as much depth in certain subjects because of the professional courses you have to take. On the other hand, it is surprising how little time is devoted to professsional work in terms of the total program—about 20% to 40%. I'll say this, if you can get a liberal arts graduate with a year of professional graduate education, then you are better off, I think. However, it is the person that is most important, not where she went to college.

Q *How about "selling" your school system? In Newton, you are in a very strong position. The schools have a fine reputation. You have the Newton Plan. You have good salaries. What would you have done if you had been the superintendent doing the recruiting in one of the districts near Newton?*

RICHTER: If it were one of the smaller towns, I'd build up its virtues. I would develop a brochure that would describe that nice little New England town, the opportunities because of the fine type of community life, the white churches, the town meetings, and the lack of smoke stacks. I would say that it was a lovely place in which to live and work. I would point out its growth under a zoning system that meant high property values. I'd refer to my town as a suburb of the "big cities that ring Boston." I'd stress the virtues of suburban living. Then, I would go to a resident with connections in the best advertising firm in the big city. I'd ask him to help me plan this brochure telling our story. I would get the townspeople to share with me in the orientation of teachers. If our school system didn't have an established reputation, I'd say that here a candidate can share in the building of a better system.

Q. *There's one final area we haven't covered—this matter of tenure. You have to calculate what you're going to do about your teachers coming up for tenure in order to estimate your needs, don't you?*

RICHTER: We start evaluating new teachers in their first year. We have a form which we call "Evaluation of a Non-tenure Teacher." This is a four-page document which, sometime in October, the principal hands to the new teacher and says, "Here's the kind of report I have to fill out on you. Will you take this and study it and then sometime before Christmas, we'll talk about it." Around Christmas time the principal sits down with the teacher and asks her to check it herself—to rate herself. Then he rates her. After that, they discuss where they differ. She may underrate herself or overrate herself. It's a friendly kind of thing. Then, in March or April the principal hands me his evaluation. He says whether he thinks she should be reappointed or not. If she isn't going to be reappointed after her first year, she generally knows this by mid-year.

Q. *When do they usually go—at the end of the first year?*

RICHTER: Yes, but certainly by the end of the second. It's too bad to wait until the end of the third year.

Q. *How large would a district have to be before it would need a full-time recruitment person?*

RICHTER: At Newton, I spend about half of my time on recruitment and selection. That also includes placing the teachers after they are hired, organizing the schools and supervising conditions of employment.

Q. *In your new district, Niskayuna, with 3,500 pupils, how much time would your assistant superintendent have to spend on recruitment?*

RICHTER: It is too early to say. There are presently two assistants but recruitment is pretty much in the hands of individual principals under the supervision of the superintendent. Ask me this question again next year! **End**

PRESS RELEASES

News from the business firms serving your schools

Locks roll-out gym seats

The Hussey Mfg. Co., Inc., manufacturers of closed deck roll-out gym seats, has recently engineered a new locking device on both ends of each tier of their roll-out seats. As the stand is opened this latch automatically locks each tier into position. When fully open, the bleacher is locked. It cannot be closed without the use of a special key.

To close the stand, the key is turned in the front skirt board lock to release the first tier. As the first tier rolls back it releases the latch of each successive tier, allowing complete closing. The system is entirely mechanical, and replaces less positive friction type locks.

Subsidiary equipment is provided to lock the unit fully closed or with one tier extended.

This simple, positive lock allows school authorities to prevent unauthorized operation of roll-out bleachers.

For further information on this product, circle number 898 on the Reader Service Card.

■ ■ ■

Bus public address system

Midwest Audio Corp. has introduced a new Mobilpage "510" combination radio and public address system for busses. Though compact, this new system is powerful enough to override noises in a coach or to provide penetrating voice warnings through an outside speaker when used on a school bus. A "signal monitor" holds radio reception at a constant volume regardless of the strength of the signal or the location of the coach. The microphone push-to-talk button automatically decreases the radio level just the right amount to accommodate the voice announcement. When the announcement is completed, the radio volume is again automatically raised to normal listening level. On a school bus this unit can keep the youngsters under complete and effective control and is a significant factor in safeguarding their dangerous street crossings.

For further information on this product, circle number 902 on the Reader Service Card.

■ ■ ■

Convertible typewriter desk

This full-sized flat top desk for commercial or steno training converts instantly to a typing desk. According to the manufacturer, a new design has been developed which keeps dirt, dust and feet away from the typewriter when the desk is used "closed."

The desk top, which measures 38 x 26.5 inches, is made from a non-warping, stainproof plastic material finished in natural birch. The rest of the desk is formed from steel and is available in a choice of colors.

For more information on this product, please circle number 885 on the Reader Service Card.

■ ■ ■

Stall-free snow remover

The Snow-Bird—a powered snow remover that actually uses the snow to help pull it along—is now available. The manufacturer says it is a job-type machine that removes snow quickly and easily, doing the work of 10 men with shovels.

Feeder blades break up frozen crusted snow and feed wet snow into the high speed blower fan. The snow is then thrown out through the discharge chute, which may be directed to right, left, front or back. It is claimed that the Snow-Bird can't stall, even in deep snow—and that self-cleaning blades prevent snow from clogging or jamming in hopper or chute.

The machine is self-propelled, so the operator just steers it. It was tested in New England during the severe winter of 1957, and successfully cleared drifts of 30 inches.

For further information on this product, circle number 894 on the Reader Service Card.

■ ■ ■

Unbreakable plumbing fixtures

A new product, an unbreakable cast aluminum plumbing fixture, has been designed and is being manufactured by the Aluminum Plumbing Fixture Corp. The fixtures are designed to withstand a great deal of punishment, yet the cost is nominal. A complete catalog and individual specification sheets are available upon request.

For more information on this product, please circle number 884 on the Reader Service Card.

■ ■ ■

New spray shellac

School custodians now can tackle school touch-up and refinishing jobs with comparative ease and speed with a versatile, clear aerosol spray shellac. First of its kind, Bulls Eye spray shellac is made by William Zinsser & Co., Inc.

The aerosol unit is ideal for worn spots on floors, thresholds, door saddles and stair treads. It is used to refinish desk tops and other school furniture with push-button ease. The product can be sprayed directly over worn finishes such as varnish, lacquers, sealers or other common wood finishes, blending with no lap marks.

The shellac is said to protect shop tools, model toys and numerous school fixtures against soiling, rusting or marring and is a quick sealer for knots and

sappy streaks in wood and replastered or spackled areas.

For further information on this product, circle number 899 on the Reader Service Card.

■ ■ ■

Portable folding tennis table

Approved by the U. S. Table Tennis Association, the new Sico Tuck-Away table is not limited to game purposes but, being 30 inches high, serves equally well as a utility table for school dinners, benefits, exhibits and similar functions. Its ability to fold also permits the use of space usually occupied by stationary game tables.

Although providing the regulation five-by-nine-foot playing surface (painted flat green with white court lines), the Tuck-Away can be folded by one person, without fear of tipping, and rolled to a storage area only 18 inches deep. Table movement during play is prevented by rubber-cushioned center supports which also prevent marring of floors when the table is unfolded.

The frame, which carries a 10-year guarantee, may be purchased separately by those who wish to employ tops they have on hand.

For further information on this product, circle number 901 on the Reader Service Card.

■ ■ ■

Adjustable-height table

A new, practical, automatic adjustable-height folding table, with a height range of 21 to 31 inches, is now in production at Virco Mfg. Co.

It comes in three sizes: 30 x 72 inches, 36 x 72 inches, and 30 x 96 inches. A fingertip lever permits easy height adjustment.

For more details about this product, please circle number 883 on the Reader Service Card.

■ ■ ■

Battery-powered floor machine

A new battery powered machine, said to be the largest made, has been announced by the S. C. Lawlor Co. It cleans 20,000 square feet per hour and does the whole job—dispenses clean water, scrubs and then vacuums up the dirty water.

Outstanding feature is the four 24-volt battery pack housed in front, so designed that another pack can be substituted in a few minutes, when recharging is necessary.

There are two tanks—a 10-gallon solution tank and a 22-gallon recovery tank—plus a 26-inch brush spread.

For further information on this product, circle number 895 on the Reader Service Card.

■ ■ ■

Opaque A-V curtain

An attractive, light-weight, completely opaque audio-visual curtain

Free Literature Available FROM MANUFACTURERS

Audio visual. An illustrated booklet, "The MCS System," published by the DuKane Corp., details information on communications and signaling systems.

For a free copy of this booklet, circle number 892 on the Reader Service Card.

Building. An eight-page brochure, "Wrought Iron Pipe for Modern School Building," has been published by the A. M. Byers Co. It tells specific school uses for wrought iron and lists schools that have used this product.

For a free copy of this brochure, circle number 880 on the Reader Service Card.

Fire safety. A 42-page brochure published by the Fire Equipment Manufacturers' Association, Inc. outlines various procedures for maintaining, protecting and inspecting fire equipment.

For a free copy of this brochure, circle number 879 on the Reader Service Card.

Heating and ventilation. A 56-page catalog, published by the Trane Co., gives complete engineering information, plans and specifications.

For a free copy of this catalog, circle 882 on the Reader Service Card.

Incinerators. "The Incinerator Blue Book," published by Joseph Goder, Inc., presents complete information on all phases of incinerator selection, installation and operation.

For a free copy of this brochure, circle number 878 on the Reader Service Card.

Kitchen equipment. An eight-page brochure, published by the Rack-Rite Division of Seco, presents in pictures and text the company's complete line.

For a free copy of this brochure, circle number 890 on the Reader Service Card.

Laboratory equipment. A 180-page catalog, published by Metalab, contains complete information on the company's expanded line of metal laboratory equipment.

For a free copy of this catalog, circle number 877 on the Reader Service Card.

Maintenance. A 53-page catalog, "Building Maintenance Programs and Products," published by the Churchill Co., outlines the company's operations.

For a free copy of this catalog, circle number 891 on the Reader Service Card.

Mathematics. A free chart, recording the historical development of mathematics, has been made available by Facit, Inc. The chart is designed as an instructive, decorative classroom display.

For your free copy of this chart, circle number 876 on the Reader Service Card.

School construction. A 12-page booklet, "A New Solution to the Problem of School Construction Versus the Budget," published by the Butler Mfg. Co., describes how many communities solved the building problem with low-cost Butler buildings.

For a free copy of this booklet, circle number 881 on the Reader Service Card.

Scientific apparatus. A 16-page booklet "A Guide for Evaluating Your Science Facilities" has been published by the Scientific Apparatus Makers Association. The booklet is a guide for schoolmen on laboratory specifications, equipment and costs.

For a free copy of this booklet, circle number 875 on the Reader Service Card.

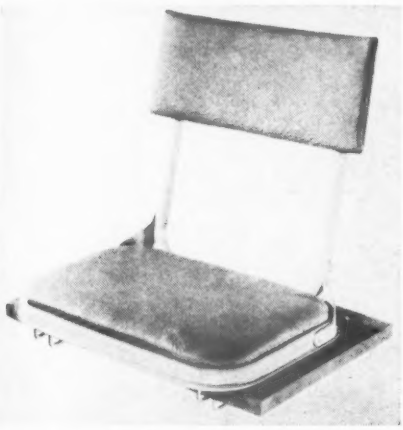
material has been developed by the Cordo Chemical Corp. Called Cordoglas, this vinyl-coated glass fabric needs no linings or flame proofing. It's washable, scrubbable, and mendable—and, according to the manufacturer, can't stretch, shrink, or fade. The new material gives permanent fire protection and has been tested and approved by fire departments in all major U. S. cities.

For more information on this product, please circle number 887 on the Reader Service Card.

■ ■ ■

Back rest for bleachers

A new folding seat which enables schools to offer comfortable stadium seating and, by so doing, increase gate receipts, has been announced by Scott



Port-A-Fold, Inc. It has been specifically designed for stands where aisle space is restricted and for use on roll-away bleachers.

List price on the unit is $4.95.

For more information on this product, please circle number 886 on the Reader Service Card.

■ ■ ■

New mobile dust pan

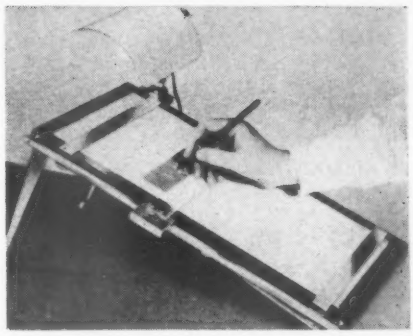
Recently developed and marketed, the Wheelex mobile dust pan features an oversize collector bin with a special floor-hugging lip. Its collector bin measures 21 inches in width, nine inches in height and 16 inches in depth to hold the extra sweepings that mean the absolute minimum of time-wasting "dumping" trips to main waste receptacles.

For further information on this product, circle number 897 on the Reader Service Card.

■ ■ ■

New all-purpose scope

As part of a new program to make professional copy preparation easy and available for all duplicating processes, The Heyer Corp. has introduced an all-purpose scope. This new scope provides the proper surface and light for drawing, lettering, ruling and writing



on all stencils, spirit and gelatin masters and paper offset plates. It also serves as a light table for retouching negatives, etc.

Named the Superscope, the new device is portable, easy to handle, and folds compactly for convenient storage. It can be used in a standing position with all four legs extended, or in a seated position with front legs folded under to support it at the best angle for proper working conditions.

For further information on this product, circle number 900 on the Reader Service Card.

■ ■ ■

Non-skid floor for buses

A sure grip, even on wet days, is possible with a new, non-skid coating made with Bakelite Resin. Tested in an Illinois school district, it was placed on the exposed metal floor of school buses after the original aisle flooring had been torn up and the surface thoroughly cleaned. Through the first year of use, wear in the surface was negligible, although the buses were in use approximately 200 days with six trips each day. The district reports a higher safety record, with fewer spills and bruises.

Similar coatings are being used on locker-room cement floors to take advantage of the same non-skid properties.

For more information on this product, please circle number 888 on the reader reply card.

■ ■ ■

Roomy gym locker

A new gym locker put out by the DeBourgh Manufacturing Company is said to provide three times as much equipment storage space as a gym basket. It insures better drying, and eliminates handling and replacement problems experienced with baskets.

The standard unit has 18 compartments with ventilated sides and fronts, with sturdy slide-latch doors and provisions for locks. They come equipped with legs for single row or back-to-back installations. The units are also available with a frame base holding two 18 compartment units back-to-back, equipped with casters.

For further information on this product, circle number 889 on the Reader Service Card.

■ ■ ■

Battery-operated color TV

A fully transistorized portable color television system using so little power that it can be operated from automobile-type storage batteries has been developed by the Radio Corporation of America.

The laboratory system, contained in two compact units weighing a total of only 65 pounds, uses 75 watts less power than the sealed-beam headlights of an automobile, and can be run either with batteries or a fixed power supply.

The system is designed for closed-circuit applications in education. It promises ultimately to extend the application of color television into new fields where compactness, portability and operating economy are essential. RCA emphasized that the laboratory equipment contains a number of components which are not yet commercially available.

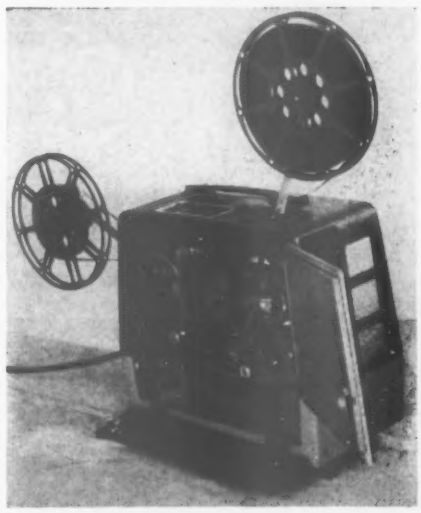
For further information on this product, circle number 896 on the Reader Service Card.

■ ■ ■

Sound motion picture projector

A new, high quality, easy-to-use 16 mm. sound motion picture projector designed especially for audio-visual instruction in schools has been introduced by Bell & Howell Co.

The 398A Specialist Filmosound, available for the first time at a new low price, features a custom-made oval



speaker built into the projector case and front-positioned so that it is always directed at the audience.

The new projector has been simplified by removal of clutch and reverse features for broader use in the classroom.

For further information on this product, circle number 893 on the Reader Service Card.

School board policy

continued from page 39

6 *Should a school board member be required to spend a certain amount of time in the schools while they are in session?*

SHANNON: Absolutely not. A very occasional visit, for a specific purpose, might be in order. Otherwise, such visits will likely be misinterpreted. For example, the teachers could get the idea that board members were coming into the school to tell them how to do their jobs. The board never wants to get itself in that position. The job of the board, jointly with the community and the professional staff, is to determine *who* is to teach, *where* they are to teach, *what* they are to teach. Then they evaluate the job done. But *how to teach* is the professional's job.

Should school board members attend state association meetings?

During the course of this interview, we asked Mr. Shannon about the purpose of the National School Boards Association, and the function of the various state associations which make up its basic membership. Herewith are his comments from the interview:

SHANNON: I have met very few participants at regional and state meetings who have not felt they were better informed because of their attendance. The same applies to our annual national convention. In particular, board members emphasize that these meetings give them a greater understanding of the proper relationship between the superintendent and the board, and greater concern for educational problems and their solutions.

It is important to remember that the National School Boards Association and its state affiliates are service and information agencies. At the national level we limit our activities to service and information. At the state level, there is frequently an "action" element, too. There is often a close relationship between school board members and members of the state legislature. The legislators frequently request the thinking of school board members on school legislation, particularly on appropriations. There is an interesting sidelight to this. Legislators go to school board members because they feel they do not have a vested interest in appropriations. Somehow, these same legislators don't feel the same about professional educators—they can't get it out of their minds that these people have a special interest in receiving more funds. I don't say this is right. But it does exist.

Q. Do the state associations actually lobby?

SHANNON: I wouldn't call it lobbying in the usual sense of the word. But legislators are politicians, and they know that school board members, for the most part, are also elected officials. They listen to them. Frankly, I think the average school board member can do more good by making his contacts with his state legislators when they are home for the weekend than he can in the halls of the state legislature.

Q. Can a local school board expect its state association to go to bat for it when it needs help. For example, could it expect help on a problem of state aid?

SHANNON: It usually doesn't work that way. The local board will generally go to the commissioner of education, or the chief state school officer. On the other hand, if it wanted to get a law changed so that it would get more aid, then the members would go to the state association of school boards and work for a legislative program to change the law.

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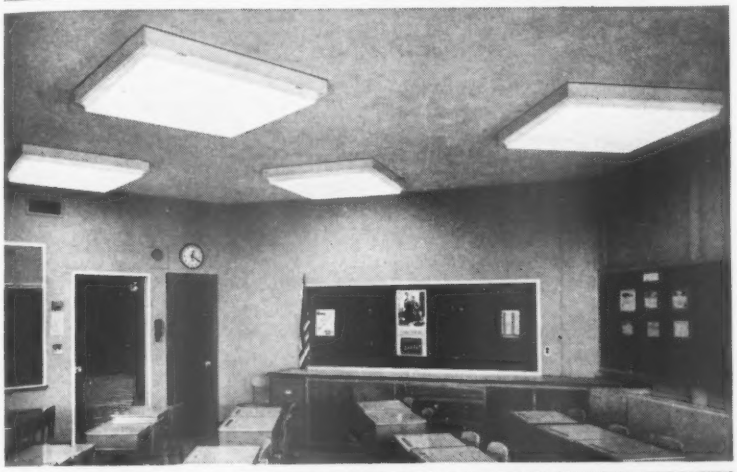

Clinton Place
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Architects:
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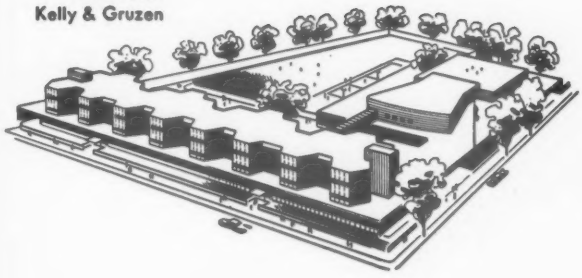

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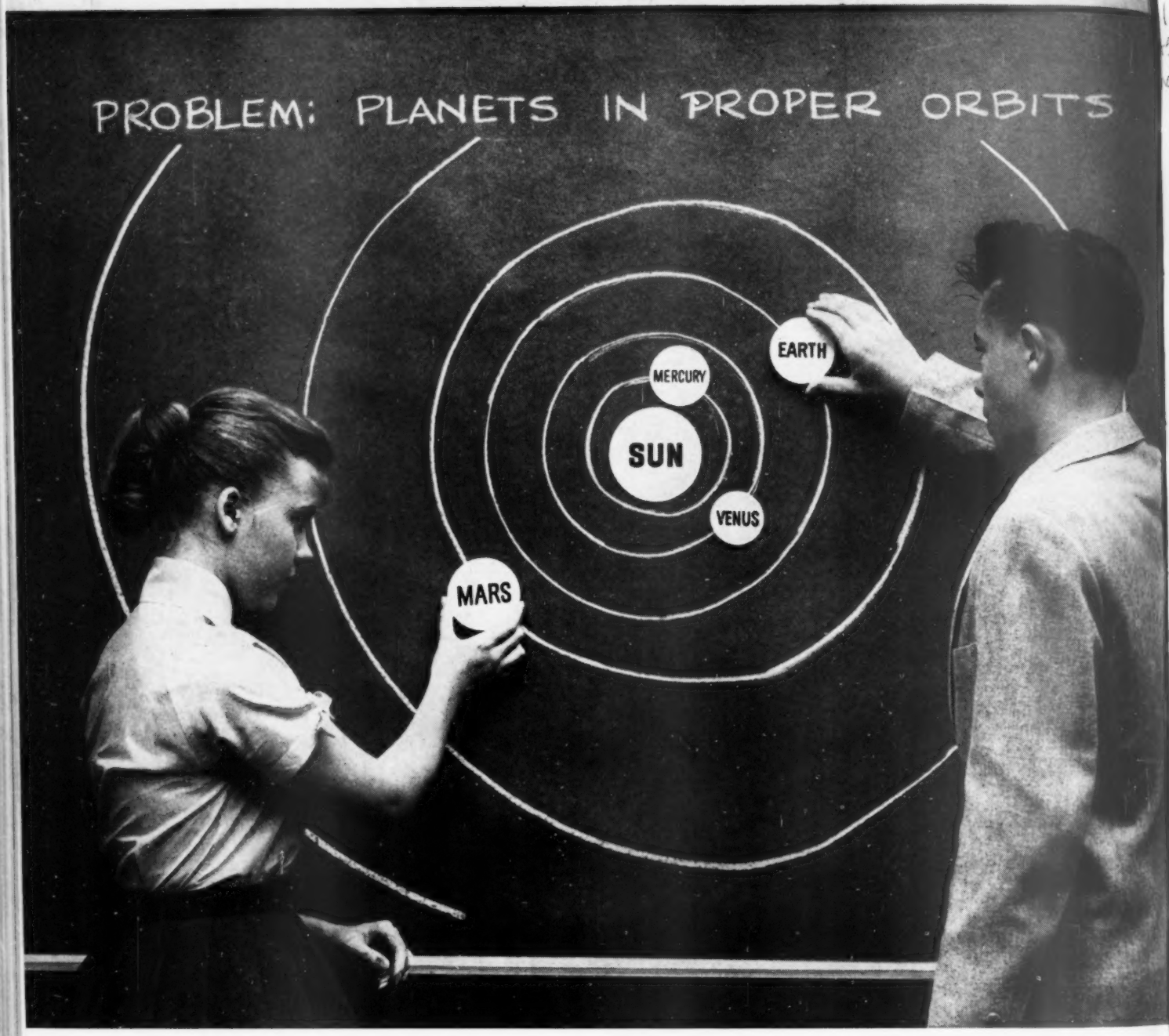

This magnet-holding chalkboard helps keep costs down to earth

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